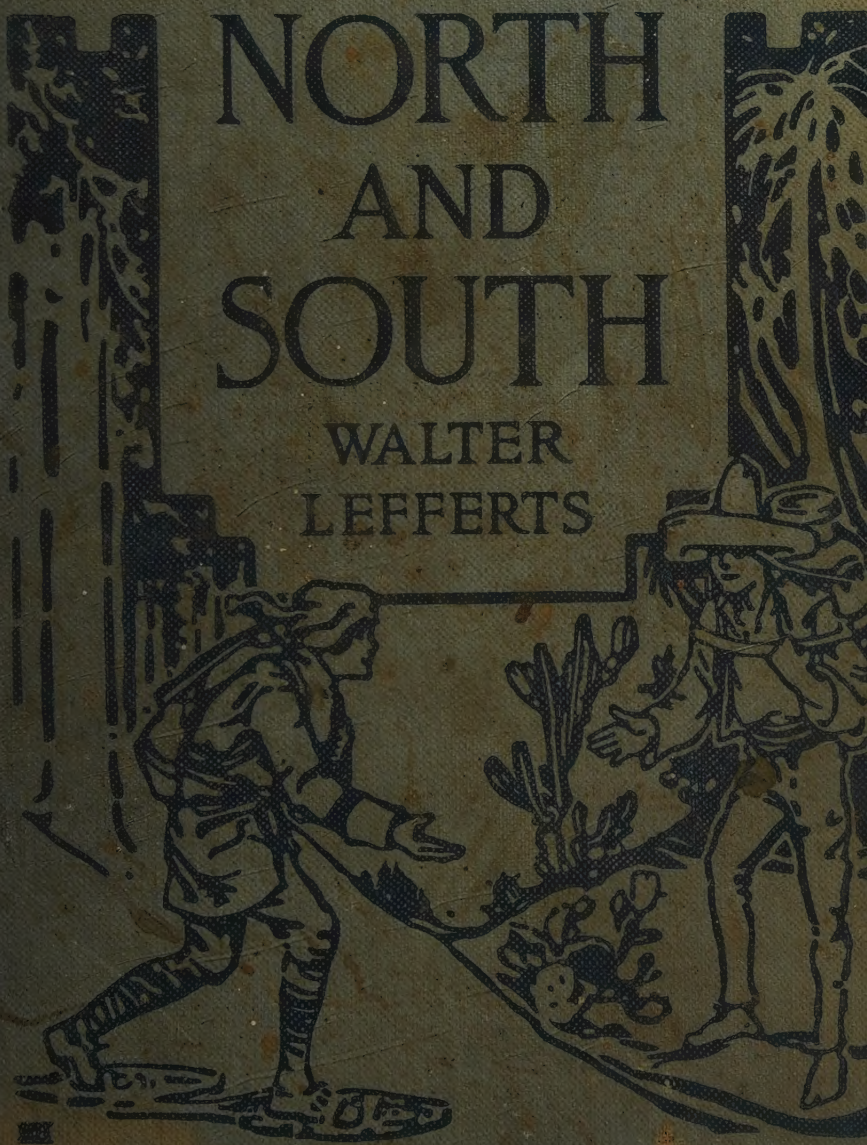
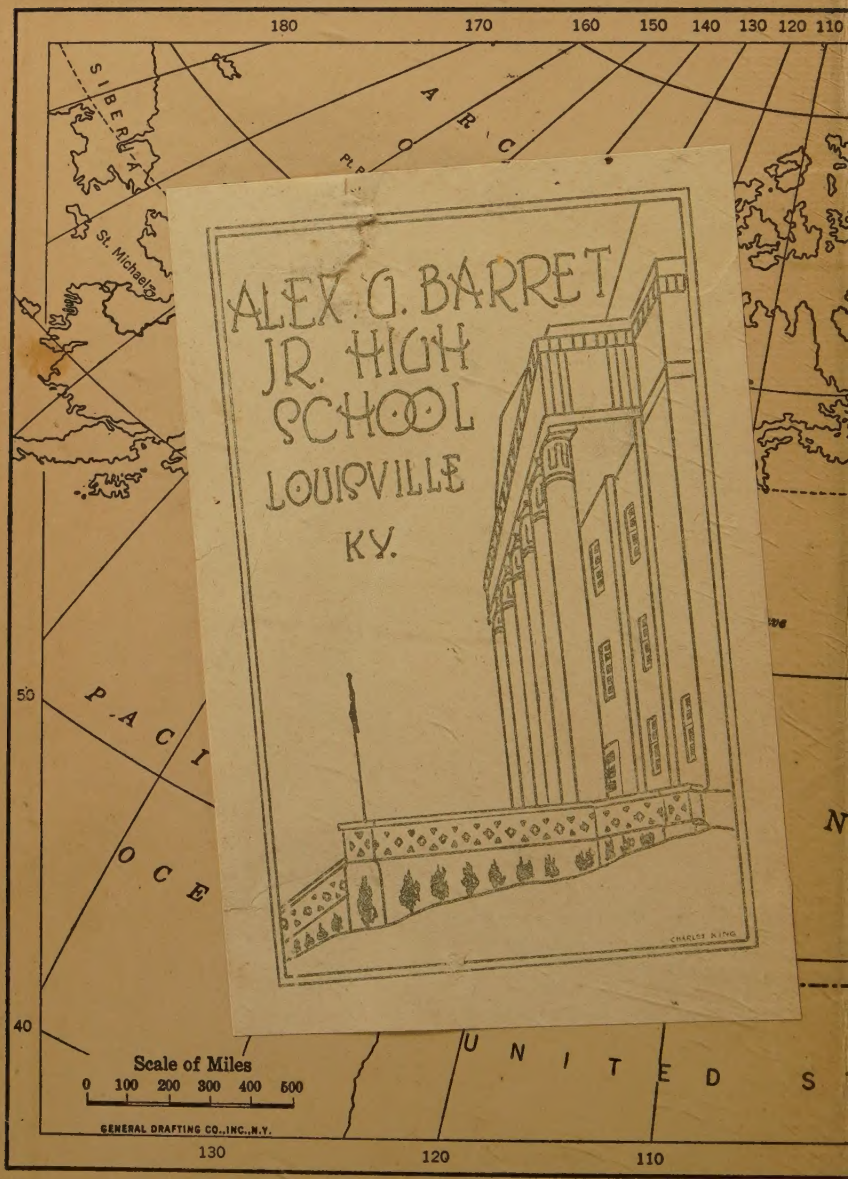
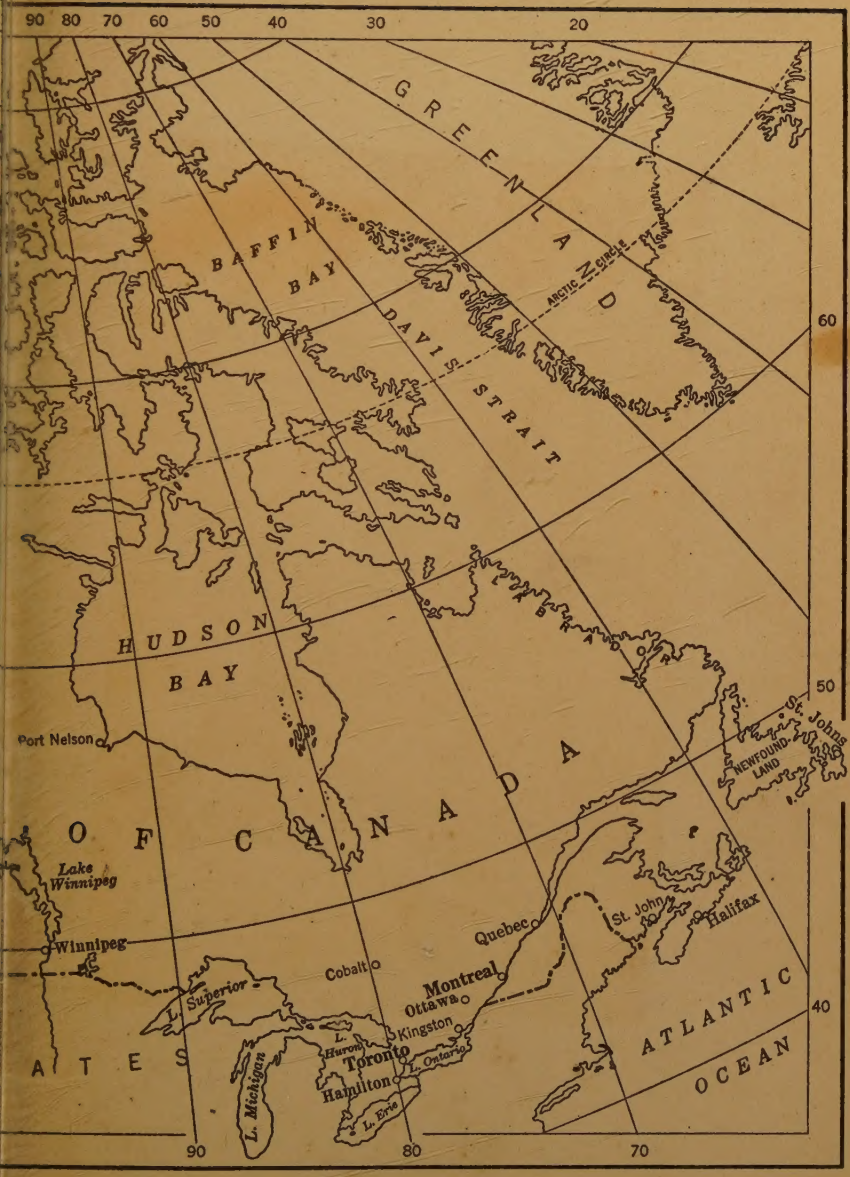
NEIGHBORS NORTH AND SOUTH

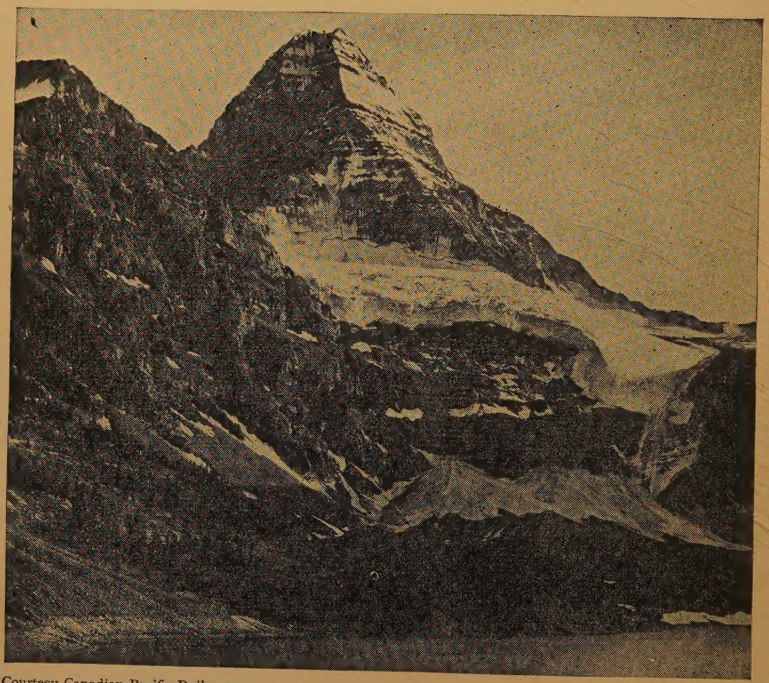
WALTER LEFFERTS




ALEX. D. BARRET
JR. HIGH
SCHOOL
LOUISVILLE
KY.
CHARLES KING
180
170
160
150
140
130
120
110
50
40
SIBERIA
St. Michael's
PACIFIC OCEAN
UNITED S
Scale of Miles
0 100 200 300 400 500
GENERAL DRAFTING CO., INC., N.Y.
130
120
110


90 80 70 60 50 40 30 20
GREENLAND
BAFFIN BAY
DAVIS STRAIT
ARCTIC CIRCLE
60
HUDSON BAY
50
Port Nelson
St. Johns
NEWFOUNDLAND
O F C A N A D A
Lake Winnipeg
Winnipeg
Quebec
St. John
Halifax
Cobalt
Montreal
Ottawa
L. Superior
Kingston
L. Huron
Toronto
L. Ontario
Hamilton
L. Michigan
L. Erie
ATLANTIC OCEAN
40
90
80
70

DISCARDED



Courtesy Canadian Pacific Railway

Mt. Assiniboine in the Canadian Rockies.

NEIGHBORS NORTH AND SOUTH

BY

WALTER LEFFERTS, PH.D.

AUTHOR OF "NOTED PENNSYLVANIANS", "AMERICAN LEADERS", "OUR OWN UNITED STATES", ETC.

ILLUSTRATED

"It seemed my spirit flew,
Saw other regions, cities new,
As the world rushed by on either side."

—ROBERT BROWNING.

ALEX. C. BARRET
Junior High School Library
LOUISVILLE, KY.

DISCARDED

PHILADELPHIA, LONDON, CHICAGO
J. B. LIPPINCOTT COMPANY

910
1493

COPYRIGHT, 1926, BY J. B. LIPPINCOTT COMPANY

THIRD IMPRESSION

PRINTED IN UNITED STATES OF AMERICA

PREFACE

"How do you know so much about that place?" one man asked another. "Why, I've been there," came the decided answer. If geography instruction can give the feeling of "being there," it will be a great success, and this book aims to produce just that feeling.

Several American girls and boys are taken on a journey through the Hawaiian Islands, Alaska, Canada, the West Indies, Mexico, and Central America, thus supplementing their experiences recounted in a previous volume, "Our Own United States." In their own way, with a touch of fun now and then, they comment on the noteworthy features which meet their view. When explanation is needed, explanation is furnished on the spot, carefully avoiding tedious or technical treatment.

Although the motto of the book is "painless instruction," it has been made as thorough as possible. Use alone will reveal all the careful touches which give emphasis and recall previous facts. Constant back-reference clinches knowledge and facilitates comparison. Suggestions at the end of each chapter ingeniously necessitate review and cause pupils to extend their study; they also call for reports, discussions and other forms of activity. The maps, though adequate, have been simplified to the uttermost, so that necessary locations will not be obscured.

Many a text, written in language which is apparently easy, fails to interest its young readers because of two mistakes; first it treats of details which do not appeal, and second, it does not use the turns of word and phrase that children naturally employ. The author, avoiding these pit-

3509

falls, has taken advantage of long experience to write chapters which children will read with eagerness and remember with pleasure. That after all is the greatest test. History and geography are sisters, therefore the historical touch is not neglected in this journey. Moreover, the store of geographical knowledge painlessly conveyed in fiction is tapped by numerous references.

The thanks of the author are due to his friends Mr. Charles R. Toothaker, Curator of the Philadelphia Museum, and Professor Alfred Gary White, of the University of Pennsylvania, for their careful reading of the manuscript and their helpful suggestions.

WALTER LEFFERTS.

PHILADELPHIA, May, 1926.

CONTENTS

CHAPTER		PAGE
I.	Paradise of the Pacific	1
II.	Hawaiian Fields and Hawaiian Affairs	10
III.	Captain Cook's Volcano-Land	18
IV.	Our Northern Possession	30
V.	Into the "Big Country"	37
VI.	Along the Yukon	45
VII.	The Great Lone Land	53
VIII.	The Mountain Province	62
IX.	Across the Great Plains	71
X.	Ontario	79
XI.	Montreal and Quebec	88
XII.	Our Yacht Cruise	96
XIII.	The Maritime Provinces	105
XIV.	Coral Islands	115
XV.	Where Spain and America Meet	122
XVI.	A Vast Sugar-Bowl	131
XVII.	New Sights in Jamaica	140
XVIII.	The Island With Two Flags	151
XIX.	Porto Rico and the Virgin Islands	163
XX.	Leeward and Windward	172
XXI.	On the Great Mexican Plateau	185
XXII.	Treasures of the Mine	193
XXIII.	Over the Top to the Oil-Fields	202
XXIV.	Entering Mexico's Front Door	210
XXV.	The Eye of Mexico	220
XXVI.	Isthmus, Temple, and Henequen	231
XXVII.	Two Big and One Little	243
XXVIII.	Nicaragua, Land of Lakes	255
XXIX.	The Rich Coast	264
XXX.	A New World-Highway	270

NEIGHBORS NORTH AND SOUTH

CHAPTER I

PARADISE OF THE PACIFIC

Approaching the Islands.—" When are you going to take us on another trip? " cry Ruth and Alice, Fred and Jack. " We'd like to see more of the world," say they. Well then, since the girls and boys seem so anxious, let's pack up and be off to visit our neighbors. First of all, we'll take a voyage to tropical seas, though not to foreign soil.

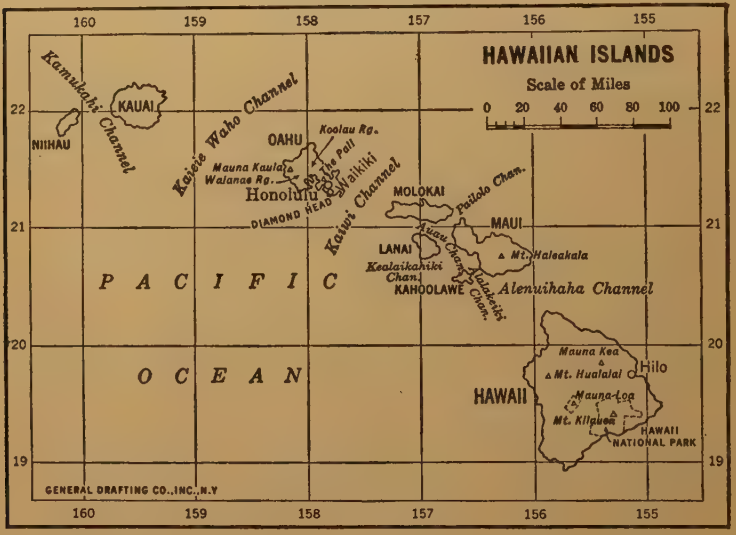
Our white steamship passes out through the Golden Gate and soon leaves San Francisco far behind. The air is chilly when we depart, but as our floating home travels toward the southwest the breeze grows warmer and warmer and the sea calmer and calmer. For more than two thousand miles we hold our course, until after six days there comes into view the eastern end of a rocky island, one of the Hawaiian (Ha-wah'-yan) group.

Through the broken clouds which are blowing over the northern shore we catch glimpses of green fields, which the captain tells us are fields of sugar-cane. Then these are lost to sight as our ship turns and proceeds along the southern shore. " Why do those mountains look so black, Alice? " asks Ruth, and Alice answers, " I heard somebody say that they were made of lava. Remember the lava-fields we saw in Idaho? "

A shout from Jack interrupts her, " Look, just look at those coconut palms along that beach! What a ragged appearance they have! " Here Fred cuts in, " Do you know

what Mark Twain called coconut trees? He said they were 'feather-dusters struck by lightning,' and I think he was about right."

Now the ship is skirting a coral reef over which the waves are breaking in white surf. Back of the reef is shallow water, and from the sandy beach a mass of green



trees, sprinkled with the roofs of houses, stretches for a mile or so until low mountains begin to rise from the plain. "Do you notice the headland we are passing?" says one of our friends. "That's Diamond Head, an old volcano, and now you can see the city of Honolu'lu, the capital of these Hawaiian Islands."

"Quiet Harbor."—"Honolulu" means "quiet harbor," and that is correct, for the coral reefs protect it. Many vessels lie at the wharves, and we see brown-skinned, athletic men trundling bags of sticky sugar aboard. The heavy

sweet smell of the sugar comes across to us before we step on the landing-plank. Here are brown-skinned women selling wreaths of flowers, and before we realize it some one has bought a wreath and put it over Ruth's head, saying, "That's your welcome to Hawaii."

"Oh, this is the island of Hawaii, then," exclaims Ruth.

Courtesy Photo Section U. S. Army

Through Honolulu harbor passes most of Hawaiian trade. The mountains in the background stop so much of the moisture brought by the trade-wind that Honolulu has only a moderate rainfall.

"No, it isn't," comes the answer. "This is the island of Oa'hu. You'll visit the island of Hawaii later; but here is the capital of the Hawaiian Islands, anyhow."

In many ways we find Honolulu very American. Uncle Sam owns the group of islands, and many Americans make their homes in the city. They have paved the streets,

installed trolley-cars, secured a good water supply, and introduced department-stores and "movies." In business matters American ways prevail.

However, in many other matters Honolulu is totally different from the cities to which we are accustomed. Away from the business centre, beautiful gardens line the streets, for no house is so poor that it need be without a wonderful growth of plants. From their broad vine-covered verandas the families look out on hedges of scarlet hibis'cus, olean'ders of many colors, and poinset'tia bushes that grow as high as small trees. In masses of purple or red blossoms, the bougainvil'lea vine clambers to the top of trees or the roofs of bungalows. The night-blooming ce'reus opens thousands of fragrant white blossoms in the darkness or the moonlight. Flowers, flowers everywhere!

As we walk or ride through the Honolulu streets, Fred and Jack amuse themselves by noticing the various peoples represented on the pavements. Everywhere they see active little Japanese, quiet Chinese, slender Filipinos, serious Portuguese, and handsome Hawaiians. Fred's quick eyes discover a sign printed in five languages for the benefit of the motley crowd. "This doesn't look American," admits Jack.

Kahului's Description.—In company with a bright young fellow named Kahulu'i, from Oahu College, we all start off to get a good view over the city. For that purpose we climb to the top of the Punch-Bowl, a small dead volcano in Honolulu, and look down upon a mass of houses and gardens stretching for miles between the ocean and the mountains.

"What's that bay a little west of Honolulu?" asks Ruth. "That is Pearl Harbor," says our friend. "Years ago, before the Hawaiian Islands became American, this harbor was given to Uncle Sam so that his ships might get coal and other supplies there. It's one of the finest natural har-

bors that you ever saw, and Uncle Sam has made it even better. You see, Pearl Harbor and Honolulu are the only two really good harbors that we Hawaiian people have. When I go over to the University of California to finish my college-work, I want to visit some of your mainland harbors."

"Please tell us now about the Hawaiian Islands themselves," speaks up Alice. "We haven't very much idea of them yet." The dark eyes of the young man sparkle, for he likes to describe his beloved land.

"Long, long ago," he begins, "a great crack, stretching for two thousand miles, opened in the floor of the Pacific, from northwest to southeast. Up spouted lava, making one volcano-mountain after another. Along most of this crevice the lava just managed to reach the surface of the ocean at certain points, making a chain of small islands extending for twelve hundred miles. Midway Island, near the northern end of this chain, is so called because it is about midway between California and Japan. Uncle Sam has a cable telegraph station there.

"At the southeastern end of the great fissure the volcanoes were greatest, and the result was that above the sea rose mountains of lava, the highest of which now reaches the level of Pike's Peak, and these became good-sized islands, the Hawaiian group, but only eight of these are important. This island of Oahu is the most developed of all, according to our American ideas, and is somewhat more than half the size of the state of Rhode Island. These eight important islands stretch over a distance of about four hundred miles, but it is easy to visit them all, for steamboats make frequent trips. Of course you will go to Hawaii before you leave. This island lies nearest of all to the United States and is the largest, being about seven times the size of Oahu."

"Now I have a picture of the islands in my mind," observes Fred. "Thank you very much for your clear explanation. Won't you go with us to the Pali (Pah'-lee) this afternoon?"

"I shall be glad to go," replies Kahului.

The Pali.—That afternoon our auto takes us up a sunshiny road through a narrow valley on the west side of Honolulu. In front the line of mountains seems to block the way. Gradually the road rises up the mountain side, until, as we turn a sharp corner, all at once we look off into space. A furious wind sends Jack's Panama hat flying far away.

"What's the matter?" cries Ruth, almost jumping out of her seat.

"Don't be afraid," returns Kahului, smiling. "This is the Pali you wanted to see. Now take a good look."

The view is amazing indeed. We are gazing at the narrow northern shore of Oahu. The cliffs descend steeply for a quarter of a mile, leaving only a strip of plain between the rock-wall and the thundering ocean, but this plain is covered with yellowish-green fields of sugar-cane and grayish-green fields of pineapples. Clouds are drifting along this side of the island, and from one of them falls a sudden downpour of rain. Never for an instant does the wind cease roaring through the gap in which we stand.

"Back the machine a little," Kahului shouts, "and then I'll tell you something." As soon as the car has left the gap, all is sunshine, peace and stillness, and Kahului begins:

"This wind is the trade-wind, that blows steadily from the northeast throughout the year. It is so strong because for thousands of miles there is nothing to stop it. To the northern or windward side of Oahu, Hawaii, and other unsheltered islands it brings torrents of rain, but on the

southern or leeward side there is not much rain at all. Therefore the fields of cane on the leeward side need to be irrigated from reservoirs high up on the mountains.

"Here at the Pali is a tablet which tells that in 1795 a great fight took place on this spot between the warriors of Oahu and those of an invading king. The men of Oahu lost

Courtesy Los Angeles Steamship Co.
View from the Pali, looking north. How does the rainfall on these north-coast fields compare with that of Honolulu? Why?

the battle, partly because the invader had a cannon, served by a white man. Hundreds of the losers were forced over the cliff and dashed to pieces."

Jack runs up to look at the tablet, but Alice groans, "Oh, wasn't that terrible? Let's turn around and go for a swim at Waikiki (Wy-ke'-ke)."

"Fine!" says Fred. "Let's be on our way!"

The Beach at Waikiki.—Back to Honolulu we run, through the city, and on to the eastward, till we almost reach

the foot of Diamond Head. Here is Waikiki, the Atlantic City of Honolulu. There are hotels and restaurants, cottages and club-houses, a park, and a famous aquarium where we look at many queer-shaped and highly colored specimens of tropical fish. One strange little fellow is called the "humuhumumukukunukeapuaa." Jack almost chokes himself trying to say the name, but, recovering, he exclaims, "All in for bathing-suits!"

Courtesy Los Angeles Steamship Co.

Surf-riding at Waikiki. Great skill is required to manage the surf-boards, but it is fine sport to be carried shoreward on a wave-crest. Diamond Head is in the background.

The bathing at Waikiki is especially good because the coral reef keeps away sharks, which are plentiful outside. Though the surf breaks over the reef and makes curling waves come rushing toward the beach, the sharks, which dislike shallow water, do not come with it. Here we see a sport practiced by the Hawaiians for centuries—that sport is surf-riding. A bronzed bather swims far out with his long board, picks out a big roller, paddles hard to get up speed, then, as the roller passes under him, flings himself

upon the board and is carried rushing beachward. Some of the surf-riders are so skilful that they stand upright on their boards as they are flying along, like statues of old-time heroes. For this day, if any one asked Jack and Fred what they would most like to be, they would probably answer, "Surf-riders."

QUESTIONS AND SUGGESTIONS

1. Make a list (using map or encyclopedia) of the eight important Hawaiian Islands. This will give you an idea of the Hawaiian language.

2. Report to your class how the Hawaiian people lived before the coming of the white men.

3. What is the label on the canned pineapples at your grocery store?

4. Why does the trade-wind bring rain to the northern shore of Oahu?

CHAPTER II

HAWAIIAN FIELDS AND HAWAIIAN AFFAIRS

The Greatest Crop.—"Tell me, what supports the Hawaiian Islands?" inquires Fred, who is of a curious turn of mind. "Lava, of course, silly!" laughs Jack. "No, joking aside, I mean what gives the people work and lets them buy things from other parts of the world? Oh, here's Mr. Kahului, he can answer that question."

"All right, boys, get the car and invite the girls, and I'll show you," says our pleasant friend. In less than an hour the car brings us to a big plantation where thousands of acres of land are covered with the waving leaves of sugar-cane. "This is the foundation of our living," Kahului remarks, "so you ought to know something about it. Here is Mr. Curtis, the manager, who will tell you more than I can."

This is what Mr. Curtis has to say in answer to the many questions with which the eager boys and girls bombard him:

"Sugar is certainly our principal crop in these islands, and we are glad to say that our planters produce more sugar to the acre than any other sugar country can boast. Of course you couldn't expect us to do as *much* as Cuba, for instance, which is far bigger, but we do far *better*. If we had the hot nights of Cuba, our cane would grow faster, and then we should produce more sugar yet; but we don't want those hot nights, for our climate is so pleasant as it is. Almost every week in the year is like May or June in your northeastern states; indeed, so little change of season do

we have that the Hawaiian language contains no word for 'weather.'

A Sweet Subject.—"To grow sugar-cane takes a lot of water. Most of the caneland lies on the leeward side of the mountains, and we couldn't raise cane there unless we irrigated the fields. So the companies that own these big plantations have made great reservoirs on the mountains, and from these lead pipes and ditches that carry the precious water where it is needed. At other points, near the seashore, water is pumped up from hundreds of deep wells and sent out to make the land fruitful. Our plantation alone requires as much water to keep the cane growing as a big city would use.

"Our red lava soil," continues Mr. Curtis, "has made fortunes for the Hawaiian Islands. It is very, very rich, yet the planters don't mind putting lots of fertilizer on it beside. Anything to get plenty of cane. Then, too, the planters select their cane so carefully that it contains an extra amount of sugar. This is what we call efficiency."

"While we're on this sweet subject," says Fred, "what becomes of the sugar?"

"It stays right under the Stars and Stripes," Mr. Curtis answers, with a smile. "Part of the raw sugar that our mills turn out is taken to San Francisco to be refined, but still more of it passes through the Panama Canal and goes to refineries in Baltimore, or Philadelphia, or near New York. These islands, small as they are, supply about one-eighth of all the sugar the American boys and girls eat—don't forget that!"

No More, Thank You!—"May I try a piece of sugar-cane, Mr. Curtis?" cries Fred. "You make my mouth water."

"Go right ahead," Mr. Curtis replies. "Here, boy, cut us some joints of cane!"

A big-hatted Japanese runs quickly up and presents us with those reddish sticks of sweetness, and the girls and boys settle down to enjoy themselves. In a minute we hear from Alice, "Oh, dear! I can't get any juice out of my piece. Please give me another joint. Some one got at mine first."

"Here, let me show you," laughs Mr. Curtis. "You need a little lesson in natural science. Cut an extra hole, so that the air can press in, and go on sucking it."

"Now it runs!" says Ruth, busily sucking away. "But—pooh! I don't like the taste! It's just dead sweet. Thank you, no more!"

"Ouch!" Jack exclaims, "I tried to chew mine, and nearly broke a tooth!"

"The best way after all," Mr. Curtis informs us, "is to cut out a piece between the joints, strip off the hard outside, then chew the softer inside part."

"I'll keep on taking my sugar out of a package, thank you just the same; it's easier," observes Fred.

What of the Future?—"Even if you're not charmed with sugar-cane," continues Mr. Curtis, "it has brought to these islands an amazing mixture of people. We must have laborers for this heavy work with the cane, and the result is just what you saw in Honolulu—Asiatic workers and European workers—Japanese, Chinese, Filipinos, Portuguese and Spaniards,—all anxious for a part of the good wages we pay. Do you know that pretty soon half the people of the Hawaiian Islands will be Japanese? Seems strange for a territory of the United States to be so largely peopled by foreigners."

"I suppose the islands will produce more and more sugar as time goes on," observes Jack, trying to look wise.

"No," is the reply, "I don't think so. All the large

spaces of land suitable for sugar-cane are already taken up by the big plantations. Of course there are bits of ground here and there that can still be used by individual farmers, who will sell to the plantation mills, but that won't add much to the total amount. If we can keep our present plantations in good condition, we shall be satisfied."

Pineapples in Profusion.—After heartily thanking Mr.

Courtesy Los Angeles Steamship Co.

A pineapple field. If it were not for the canning industry, Hawaiian pineapples would do us little good. In which of our States are pineapples raised?

Curtis, we drive on a few miles to a pineapple plantation. The pineapple comes next to sugar in importance, and its growing is mostly of recent development. Not many years ago some one brought pineapples from the East Indies and planted them on Oahu. The yield was so enormous that there were more pineapples than any one could eat, and great quantities of the fruit spoiled. The pineapple planters decided to go out of business.

Other people, however, began to cultivate pineapples for their own use, and after a while they established a little cannery. Now that tiny establishment has been replaced by immense buildings from which millions of cases of canned pineapple are sent out every year. On this plantation we see

Courtesy Los Angeles Steamship Co.

Working in a rice-field. The kind of rice usually grown needs much water. These workers are Japanese, and rice is a part of their daily food. The United States now raises more rice than it needs, so has some for export.

laborers gathering the ripe fruit from the field. Because the leaves of the "pines" are so sharp and spiny the pickers wear thick gloves and heavy leggings.

Train-loads of the gathered fruit roll into Honolulu, where the cannery workers put it into machines which peel off the skin, cut out the core, and slice the meat into delicious disks, floating in fragrant juice. Nothing is lost in the case of the pineapple, for even the cores are chopped up for con-

fectioners to use and the skins go back on the fields as fertilizer. "That reminds me of what they told us in the Chicago packing-houses," says Fred, "that they used all of the pig but its squeal."

On our way back to Honolulu Alice calls out, "Look at that man working in that swamp. What a funny-looking animal he has!"

"That's a water-buffalo," answers Kahului. "It has to have a roll in muddy water every day, or it gets sick; but that place you see isn't exactly a swamp; it's a rice-field. The Japanese and the Chinese here need a great deal of rice, and as you remember from visiting Arkansas and Louisiana, the usual kind of rice must grow with its feet in the water. Thousands of Japanese slop about in the rice-fields to provide food for their brothers here. Even at that a great deal of rice has to be imported from Japan."

"Well, now I think I know my lesson," says Ruth, looking wise. "Sugar, pineapples, and rice are the most important productions of the islands, and by far the greatest of these is sugar."

The Cross-Roads of the Pacific.—"Yes, but now that Ruth knows her lesson, please tell us," cries Fred, as we arrive, "what people mean when they call these islands 'The Cross-roads of the Pacific.'"

From his pocket Kahului takes a folded map, and stretches it out. "See," he says, "how we are located. The steamer-routes are marked, and you notice that almost every important line of boats running across the Pacific calls at Honolulu. If you wish to go from Seattle, San Francisco, Los Angeles, or Panama to Japan, China, the Philippines, or Australia, you will go by way of our little islands.

"We seem at the centre of a star with these trade routes coming to a point here. Therefore, as we have the best

place between America and Asia where ships may supply themselves with water, coal, and oil, we are of great importance. The voyage across the Pacific usually takes three weeks for even a fairly fast steamer, and few of the steamers try to carry the great amount of coal they need for the whole distance. Instead, they spend a day at Honolulu taking on

Courtesy Los Angeles Steamship Co.

Japanese children, American citizens by birth. The Japanese find in the Hawaiian Islands a home which resembles their original land. Japanese outnumber in the Hawaiian Islands any other group of people.

coal and thus save space for their cargo. Finally, don't forget that the Hawaiian Islands act as a health guard for our mainland of the United States. Here we stop the immigrants from the crowded Asiatic countries and look them over to prevent any diseases being imported."

How the Islands Came to Uncle Sam.—"I'm glad that the islands are part of the United States," exclaims Jack, "but I wonder how that happened."

"Well, I'll tell you," says Kahului in his musical voice. "When American missionaries came here in 1820, they became a great power for good, and for sixty years from that time the Hawaiian kings were friendly to the United States. About the year 1876, when you had your Centennial Exposition, Uncle Sam let Hawaiian sugar come in without paying duty, and in return the king gave to the United States the use of Pearl Harbor as a coaling-place and naval station. That treaty was what made our islands really prosperous.

"A few years later, however, there ruled over us a queen who determined to make herself so powerful that she could do as she wished. She intended to establish a government lottery which would fasten the gambling habit upon the people, and expected to permit the selling of opium freely. The best people of the islands revolted, established a government, and asked the United States to annex the islands, but as Uncle Sam seemed in no hurry, the Republic of Hawaii came into life. Four years afterward, when the United States declared war with Spain, every one saw how important the islands were as a base in dealing with the Philippines, so in 1898 Hawaii ceased to exist as a republic and became one of Uncle Sam's territories. There you have the story."

QUESTIONS AND SUGGESTIONS

1. Why have not the Hawaiian sugar-planters established refineries in their islands?
2. Why do more Japanese than Chinese come to the Hawaiian Islands?
3. What has canning done to help your mother and yourself?
4. Draw a map on the proper scale to show the trade routes mentioned by Kahului.

CHAPTER III

CAPTAIN COOK'S VOLCANO-LAND

First Sight of Hawaii.—Now we are in a small steamer, leaving Honolulu behind and traveling eastward to the island from which the Hawaiian group is named. This island of Hawaii is the last, the youngest, the highest, and the largest of the whole chain. It is as big as all the rest of the "archipelago" put together, and has been made by the joining of three huge but gently sloping volcanic mountains. Because Hawaii is the youngest of the Hawaiian Islands, the fires which formed it have not yet gone out; and to see those fires is our especial object.

As we come into sight of Hawaii the island slopes rise so gradually from the sea that we do not realize how high they extend until Ruth points to the topmost summit, saying, "Look, that must be snow!" Sure enough, the peak of Mauna (Mow'-na) Kea, at which Ruth is looking, is covered with snow, which stretches for a long distance down its sides.

"I know it seems strange to you that there should be snow in the tropics," remarks the captain, "but that shows you the altitude of the mountain. Mauna Kea, or 'white mountain,' is almost as high as Pikes Peak, and two Mount Mitchells, one on top of the other, would not be its equal. It has the honor of being the highest mountain in the Pacific; during most of the year, therefore, it is white-capped, although the red soil of the lava plains far below never knows the touch of frost; and even through the summer you can find banks of snow in sheltered places."

Between us and Mauna Kea appears another of Hawaii's

three parent mountains, Hualalai (Hoo-ah-lah-lah'-e) a volcano long ago dead, but still showing the black marks of torrents of lava that have poured from its crater. Though a mile lower than Mauna Kea, it still is half again as high as

A Hawaiian making a mat out of tapa—fibre of the lanhala tree.

Mount Washington, so Jack concludes Hualalai is worth taking into account.

A Captain's Monument.—"How dusty the air seems!" remarks Alice. "Fred, won't you please bring me some ice-water? My throat feels just parched."

"That'll show you that we're on the leeward side of the island," answers the captain. "Not much rain here. The lowlands are used for raising cattle, although on the mountain slopes there are coffee plantations. It's lucky that I have

to go farther along this coast than usual, because I can show you something worth while knowing about."

"I see something that looks like a monument, among those coconut palms," observes Jack, gazing toward the shore, which is very near.

"Yes, that's the monument of the famous Captain Cook. Shall I tell you about him?" says the captain.

"Oh, do, do!" cries Ruth, clapping her hands. "I dearly love to hear a story."

The Sandwich Islands.—"James Cook," begins our friend, "was the son of a poor laborer on an English farm, but he went to sea and finally enlisted in the royal navy. Cook studied mathematics with all his might; the charts which he made of poorly known coasts brought him into notice, and he was sent on voyages of discovery. After returning from one such voyage to the Antarctic Ocean lasting three years, he offered to try to sail clear around America.

"Accordingly, in the same month which saw our Declaration of Independence proclaimed, Captain Cook started out again. He spent a year in the South Pacific, and on his way north came to the Hawaiian Islands, which had not been seen by white men for more than two hundred years and consequently had been forgotten by the world.

"'What are these things with branches?' asked the brown natives as they viewed with wonder Captain Cook's two vessels. 'A forest has slid down into the sea!' exclaimed some; but others said, 'These are temples of the god Lono.' The islanders brought offerings to the white god, who in return gave them sheep and seeds of vegetables. All was peace and friendship. In honor of a nobleman, the Earl of Sandwich, who was his friend, Cook named the group the Sandwich Islands.

Cook and Vancouver.—" Before many days Cook set sail toward the north, and spent nearly a year in the high latitudes; but when he found fields of ice entirely blocking his path, Cook turned his ships again towards the pleasant isles that he had left. At the end of the year 1778 the English ships again cast anchor at the island of Hawaii. Once more the natives received them with abundant gifts; but as time went on the visitors wore out their welcome.

" Joyfully the Hawaiians saw the English departing; but unfortunately a storm disabled one of the vessels and back they came to Hawaii. The natives had seen an English sailor buried, and concluded that though Cook might possibly be the god Lono, certainly his seamen were not divine. Some articles were stolen from the ships, and Cook, much offended, came on shore to capture the Hawaiian chief in revenge. A mob of natives threatened the Englishmen, Cook fired a shot, and the fight was on. The thrust of a dagger which the English themselves had traded to the natives killed the captain. So perished one of the most celebrated of English navigators.

" With Captain Cook on this voyage was a young officer, George Vancouver, who made other visits to the Hawaiian Islands a dozen years later. Vancouver desired to be a good friend to the natives, so he gave their chiefs orange-trees and other useful plants and seeds, but refused to sell them firearms, saying that King George had forbidden it. All of Vancouver's words and deeds stood for peace, and as he left Hawaii the islanders shouted, 'We are men of Britain.' However, Britain never took steps to grasp the islands. When you visit Canada, girls and boys," concludes our story-teller, " you will hear of Vancouver's name again."

Our boat now turns the western point of Hawaii and proceeds along the northern shore. The trade-wind blows

the water into rough waves, but by this time we are all good sailors, so there is nothing to prevent us from admiring the scenery. Rising from the water's edge stand tall cliffs, from which descend many waterfalls. Stretching back from these cliffs lie pale-green fields of sugar-cane, backed by a belt of forest, and behind the forest we see bare slopes which reach up to the carpet of snow on the top of Mauna Kea.

Hilo and Its Background.—Finally a curving bay appears. Here is Hilo (He′-lo), the chief city of Hawaii, but not a very large city either. Hilo means "new moon," and the name comes from the crescent bay, which forms a good harbor. The trade-winds bring such heavy rains that a regular jungle of forest grows back of the town, and the trees and flowers of the gardens almost hide the houses.

On the windward side of Hawaii there is space for wide cane-fields that climb up the long gentle slopes, and these fields of course need no irrigation. In fact there is so much water that long V-shaped troughs called flumes have been built, through which flow streams of water that carry the sugar-cane from the field to the mill. Jack wants to hop on a bundle of cane and go shooting-the-chutes at thirty miles an hour; and he is much disappointed when we won't let him risk his neck doing it.

Behind the forest and behind the cane-fields that have been cut out of the forest we see not one great mountain, but two; for Mauna Kea has a sister volcano, Mauna Loa. Mauna Kea is dead, while Mauna Loa is very much alive. The island of Hawaii is still being made, and we can see it in the making.

"You didn't take us up to the top of Mount Lassen," says Fred, "so don't let's miss seeing a good lively volcano now."

Up to Kilauea.—Our car whirls us from Hilo along a highway bordered by the greenest of cane-fields, then giant tree-ferns, thirty feet high, droop their plumes above our heads, while now and again, through the forest, we catch sight of some coffee-planter's bungalow. The road rises steadily, while the forest grows wetter and wetter and the air grows cooler and cooler. We have climbed four thousand feet above Hilo, and now the car swings into the grounds of a little hotel. "See the sign, 'Volcano House,'" calls out Ruth. "We must be at our journey's end; but where's the volcano?"

We all jump out of the car and look around. "I smell sulphur!" Alice cries. Yes, there among the wet green grass and trees comes up a puff of white vapor or steam, and there, and there! Jack runs over to investigate, and comes back to report that the bad-smelling vapor is rising from cracks in the ground. "Hoo-hoo!" calls Fred. "Here's the crater! Hurry up!"

A short distance in front of the hotel the ground drops away and we look down for hundreds of feet into an enormous pit, about eight miles in circumference, with a somewhat level but very rough floor of lead-colored lava, frozen waves that have once poured out from the earth's inner furnaces. This is Kilauea (Kil-ow-ay'-a), one of the world's great craters.

The Inner Pit of Fire.—"But I thought Kilauea was a mountain," Ruth says, disappointed. "And it doesn't look like my idea of a volcano at all."

Yes, Kilauea does disappoint some visitors. It never succeeded in building up a mountain, but is just a big hole on the slope of Mauna Loa. Then, too, it does not roar and cast into the air columns of steam and dust; but once upon a time, since Captain Cook's day, Kilauea did burst into

Courtesy Los Angeles Steamship Co.

This forest of tree-ferns is on the way to Kilauea. The warm, steamy atmosphere just suits these luxuriant plants.

action and wiped out a whole division of Hawaiian warriors who were marching across the crater.

"Where's the fire?" Alice inquires. "Let's find it," says Jack, decidedly. There is a winding motor-road which will finally lead us down into Kilauea, but we prefer to walk down a steep path bordered by shrubs, vines, and small ferns. Having safely arrived at the bottom, we set out with a guide over the hard lava, which is also hard on shoes; and after a three-mile walk toward some rolling yellow smoke in the distance, passing over cracks from which come waves of heat, we hear the sound of something boiling.

Carefully, very carefully, we creep forward. At last we stand on the edge of a pit within the pit,—and look down on a lake of fire. The lava in the cup is restless; it bubbles, it tosses,—now a scarlet fountain of melted rock spouts up, then sinks back and loses its color. "Ooh!" shivers Ruth. "A piece of the side of the pit just fell in. Let's get farther back from the edge!"

But the watchful guide tells us that he knows the spots which are perfectly safe, so we need not worry. We picnic on the lava, and stay until darkness comes. Oh, how fiendish but beautiful the pit looks then! Colors of many kinds reveal themselves in the lava and in the sulphur-smoke, and the waves of fire seem to toss more wildly, the fountains of fire seem to spout higher than in the daylight, while the sound is like that of surf on the shore. "I'm almost afraid to look at it," says Alice, "yet I can't help looking."

The Fire-Force of Kilauea.—"Tell us all about Kilauea, Mr. Guide," demands Fred.

"Glad to do so," says the guide. "The geologists say that the lava spouting up from the interior of the earth first formed Mauna Kea, which is, as you already know, the highest island-mountain in the world. After a time Mauna

Kea was so high that the lava found two outlets lower down, one to the west and one to the east. The one on the east is Kilauea, and there the lava formed a small mountain. As the fire-force grew stronger, it formed Mauna Loa, which towers above us now. Then the torrents of lava from Mauna Loa flowed down upon Kilauea and so covered it up that now its own mountain is blotted out, and it looks like a side-crater of its big sister.

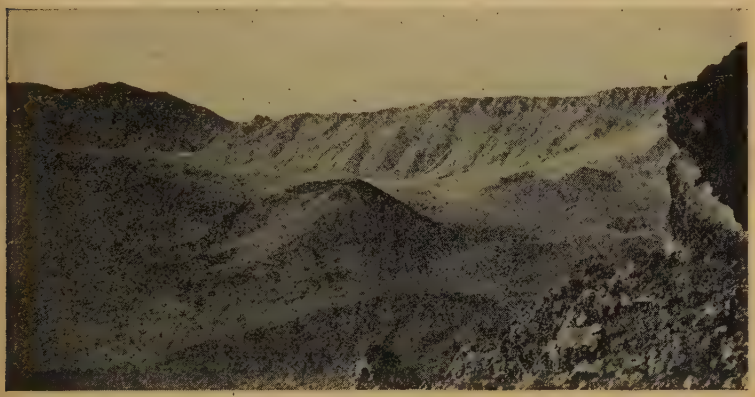
"There is a crater, called Moku'aweowe'o, on the summit of Mauna Loa, not so deep as Kilauea, and not so active, but to see it you would have to spend three days in the saddle and be very warmly dressed. Thousands of crater pits of all sizes dot the desert slopes of the upper part of Mauna Loa; yet no lava pours out of them now. The fiery floods, when they do occur, usually break out of Mauna Loa and Kilauea on the sides below the big crater of each volcano.

"Sometimes the dwellers on the plains far below see a bright light glowing on the side of Mauna Loa, and they say, 'The lava's flowing again!' Once or twice the fiery river has burned a path clear to the ocean, and has poured over the cliffs among hissing volumes of steam, a marvelous sight. Several times the lava has threatened Hilo, and once it came within half a mile of the town; but probably Hilo is safe enough. Some of the ranchmen on the gentle slopes of Mauna Loa, however, have had the experience of waking up to find some of their best grazing land buried under a thick carpet of lava."

Last Impressions.—On our way back from Hilo to Honolulu we stop off at the island of Maui (Mow'-e) to view still another volcano, but one long since dead, Halea-ka'la, "the house built by the sun." A railroad takes us part way up the mountain; then we take horses and climb upward

more than a mile in height, until, ten thousand feet above the sea, far above the clouds, we reach the rest-house at the rim of Haleakala's crater.

We stand on the edge of a pit which dwarfs Kilauea. While the crater of Kilauea is eight miles in circuit, that of Haleakala measures twenty miles. It is the largest crater in the world. From the rest-house we look down for two



Reproduced by permission of the Philadelphia Commercial Museum

The crater of Haleakala. A volcano which, like Haleakala, seems to have died, is called "extinct", but many volcanoes thought extinct, have come to life again.

thousand feet into that big hole, which would easily contain Manhattan Island. From its bare floor rise sixteen hills, the tallest of them far overtopping the Woolworth Building; they are volcanic cones formed as Haleakala died. The great expanse of desert country within the crater makes us feel the vastness of the force that formed it.

No wonder that Uncle Sam has included this spot, as well as Kilauea and part of Mauna Loa, in the Hawaiian National Park, a marvelous place. It might well be called Crater Park, for there are the greatest two active craters in the world and the world's highest extinct crater. This Park is

Courtesy Los Angeles Steamship Co.

Hawaiian tourists wearing leis. "When you are in Rome, do as the Romans do." The Hawaiian natives, whose race is nearly extinct, passionately loved flowers and song.

a magnificent addition to the list of our country's great public playgrounds and beauty-spots.

As our steamer at last moves away from the wharf at Honolulu we take with us memories of a charming and impressive land. Our friends throw over our heads sweet-scented "leis" (lay'ees), wreaths of lovely flowers. They throw to us long many-colored streamers as if these would hold us back from departing. To the ukulele and the guitar they sing the old Hawaiian song, "Aloha Oe" (Love to You). Sadly we say good-bye; yet in our going we are glad that this "Paradise of the Pacific" is part of our own United States.

QUESTIONS AND SUGGESTIONS

1. Captain Cook did some good things for the natives of the Hawaiian Islands. Find out what they were.
2. In what industry of the main United States are flumes used?
3. Tell to your class the story of Kapiolani and how she defied the fire-goddess Pele in the crater of Kilauea.
4. What active volcano do we have in the main part of the United States?

CHAPTER IV

OUR NORTHERN POSSESSION

Into Canada.—Out of Seattle harbor glides our steamship, through Puget Sound, and turns toward the north. Before we have time to forget Seattle, we find ourselves looking at the Canadian city of Victoria, named after the good English queen who reigned for so many years. "This, I think, is the most charming city in Canada," says a ruddy Englishman beside us. "Look at its beautiful homes with their lovely gardens. Who couldn't grow wonderful flowers, all the year round, in the mild, moist air that breathes from the Pacific?

"In fact," the speaker continues, seeing we are all attention, "Victoria is often called the 'southern resort' of Canada, because its climate is so even. Ah, there are the Parliament buildings, for Victoria is the capital of the province of British Columbia. Canada, you know, is divided into provinces like your separate states, and just as each state has its legislature, so each Canadian province has its parliament.

"Victoria should really be called Vancouver, for it is on Vancouver Island," says our Englishman. "Was that named for the George Vancouver that we were told about in the Hawaiian Islands?" asks Fred. "The very same," comes the answer. "He was a good man and a good explorer, so I'm glad that this fine island bears his name. It is nearly as large as West Virginia, and he was the first to sail around it."

There is a city of Vancouver, however, but it is on the

mainland, eighty miles away from Victoria. Our boat stops there awhile, for Vancouver is the busiest and largest city of western Canada. Though it has no more people than Fall River or Nashville, it is growing very fast. "Just fancy," observes the kind Englishman, "the present town of Vancouver didn't rise out of the forest until 1886, so Vancouver's almost a baby yet."

The great Canadian Pacific railroad reaches the Pacific

Reproduced by permission of the Philadelphia Commercial Museum

Vancouver. This is the chief Pacific port of Canada. What industries sustain it?

at this point, and Vancouver sends out to the world trainloads and shiploads of wheat from the plains, salmon from the waters, and lumber from the forests. A patch of the beautiful forest, almost surrounded by water, is preserved in Vancouver's Stanley Park, where we stand in reverence by a group of giant cedars fitly called the "Cathedral Trees." On her peninsula, with sparkling water to the right, and sparkling water to the left, Vancouver has a fine position indeed.

Canneries of the Passage.—In the morning our boat moves on, between Vancouver Island and the mainland. The water is calm and deep; on the shores we see few houses,

but great wild stretches of dark forest. "This is safe sailing, certainly," says Alice, who isn't the best sailor in the world; "but what will we do when we get past the shelter of the island?"

"Don't worry," laughs the captain, as he hears Alice's question. "We are traveling by the Inland Passage, a thousand miles long, with a fringe of rocky islands between us and the open sea for almost all the way. This coast sank, long ago, and we will follow the course of ancient valleys, with the tops of the old mountains protecting us from stormy waves. Isn't that fine?"

Day after day we steam on through the still almost deserted Inland Passage. Sometimes, in a little bay, appear some sheds and rough shacks. These are salmon cannery settlements. "Oh, Ruth, don't you remember the story of the Columbia River salmon?" exclaims Fred. "I feel as though I were well acquainted with their habits."

The canneries are open for business only in summer, as the salmon begin to run into the rivers in June. Then, for a month or so, the work goes on day and night. Slant-eyed Chinese or Japanese and brown Indians work busily together at the cannery benches to dispose of the "silver horde" which the boats bring in. Long before autumn comes, the labor is done and the cannery is left again to the silence of the wild.

"These are all Canadian canneries; doesn't Alaska have some?" says Jack. Yes, Alaska has considerably more than a hundred, and packs many million cans of salmon each year. Nearly half of the fish that we eat under the Stars and Stripes is salmon from Alaska.

Prince Rupert and Sitka.—After more than five hundred miles of water travel we pass the prosperous little city of Prince Rupert, where ends the most northern railroad line

of Canada. Its steep plank-paved streets run up and down the rocky hills which slope to the harbor, and many spots had to be leveled with dynamite before buildings could be placed on them. About three hours afterward the captain says, "Now you have crossed the line into Alaska;" but on we go through the Inland Passage.

"Sitka!" is the cry as the ship drops anchor in a fine bay, studded with islands and surrounded by snowy mountains. In the quiet town rises the dome of a big church, that looks strange in its shape and ornaments. "This is the old church, they say, where the Russians worshipped," exclaims Fred, "but what did the Russians have to do with Alaska?"

"I know," shouts Jack. "The Russians discovered Alaska, and had trading-posts there for a good many years. They grew tired of it then, and just after the Civil War they sold it to us. I'm glad they did."

"The Great Country."—One hundred fifty miles on from Sitka, and nearly at the end of the Inland Passage, we see Juneau (Ju'no), capital of Alaska. Here, of course, is the meeting-place of the legislature and the home of the governor. Ruth and Fred talk to a bright Juneau boy about his land.

"Alaska is big enough to be a state, isn't it?" questions Ruth.

"You'd better believe it," says young Mr. Juneau. "Don't you know that it would take only five Alaskas to make up the main body of the United States? The name Alaska itself means 'great country,' but we haven't many people here. All the Alaskans together would make only a city the size of Mobile, Alabama, and half of them would be Eskimos and Indians.

"On that account we're just a territory, and we can't

elect our own governor; Uncle Sam appoints him. We don't send Senators or members of the House of Representatives to Congress, but we do send a delegate there, who can speak for us but not vote. Some day we're going to be a real state, though."

Not So Cold.—After we have walked about the steep streets of Juneau, hemmed in between the mountains and

the sea, we call upon the governor, who receives us most pleasantly. "Wouldn't you like to settle in Juneau?" says he. "It isn't a bad place at all. We have modern, comfortable homes here, you know, just like other Americans."

"But isn't it frightfully cold in winter?" speaks up Alice. "This is far, far north of our homes."

The governor laughs heartily. "You are fooled like the rest. Will you believe me when I say that Juneau and Sitka and all the places along our southern coast are not so cold in winter as are St. Louis and Chicago?"

"Of course you know," answers Fred, "but why is that?"

"Mild winds from the ocean blow over the shore," explains the governor. "They temper the air both in winter and in summer. Of course they often bring rain, too. At Sitka it rains or snows on half the days of the year, but we don't mind that since the bitter cold is kept away. Our

Courtesy Philadelphia Public Ledger

Muir Glacier flows down the slopes of Mount Fairweather into Glacier Bay, which we enter through Icy Strait. The front of the glacier is a wall of clear blue and white ice, and it moves slowly into the bay at a rate of less than ten feet daily.

harbors are never frozen in this part of Alaska, while not long ago I read about Chesapeake Bay being frozen. I'm sure you would like it here."

Vast Glaciers. Seward.—Leaving Juneau, we go westward through the open sea, but we keep near the shore. On land we see a sharp-peaked mountain, Mount St. Eli'as, and to its left immense glaciers creep down to the ocean. We have already noticed many glaciers, fed by the heavy snowfall on the coast mountains.

We have already found that one of these glaciers, named after our old explorer friend, John Muir, is a thousand feet thick, two miles wide, and is bigger than all the eleven hundred glaciers of famous Switzerland put together. This vast Malaspi'na glacier near Mount St. Elias, however, stretches for fifty miles at its mouth and is larger than Rhode Island. It is easily the greatest in the world. From all the glaciers that invade the sea huge pieces break off with the noise of artillery, and float away as icebergs, dangerous to vessels.

After five hundred miles of ocean we come to the town of Seward, named after the wise Secretary of State, William H. Seward, who bought Alaska for the United States. There were many people at that time who wondered why we paid good money for "a waste of rocks and ice," and many who called Alaska "Walrussia" and "Seward's Folly"; but Alaska has been a good bargain.

QUESTIONS AND SUGGESTIONS

1. Rudyard Kipling wrote his famous "Recessional" poem at the close of Queen Victoria's Diamond Jubilee. How was that Jubilee celebrated?

2. What mountain of our Pacific Northwest did Captain Vancouver name, and why?

3. The Inland Passage is a drowned valley. What famous drowned valley on the eastern coast of the United States have you studied?

4. Why are the salmon called a "silver horde"?

5. Are the Hawaiian Islands governed in the same way as Alaska? Prove your answer.

6. In "Stickeen," by John Muir, read Muir's account of his adventure with a little Indian dog upon an Alaskan glacier.

7. "Seward's Folly," by Edison Marshall, tells how Jeff Sharp, Confederate, was sent by Mr. Seward to Sitka.

CHAPTER V

INTO THE "BIG COUNTRY"

The Story of the Fur-Seal.—Before we leave the ship at Seward, Jack takes a good look at the map. "Here's Seward on a peninsula," says he thoughtfully, "at the bottom of the main part of Alaska. Why, look, we've hardly gotten into Alaska at all! It surely is a big country."

"Oh, yes," answers Fred, "it reminds me of an enormous tooth, with two roots. One root is along the Inland Passage, and the other, ever so much bigger, is that peninsula of Alaska and the long chain of Aleutian Islands, stretching way, way out into the Pacific!"

"As a farewell story," remarks our kind captain, "I'll tell you a story about wild animals. Out there, beyond those Aleutians with their sixty volcanoes, are two islands, St. Paul and St. George, called the Prib'ilofs. They are bleak and bare, away out in Bering Sea, and most of the time they are wrapped in fog; but because loneliness and fog seem to mean safety, the fur-seals have taken them as a home.

"These fur-seals are not really seals, but rather sea-lions, much like those that you have seen on the rocks at San Francisco. In May the seal-herds arrive at the islands from an eight-month swim in more southern waters, and shortly afterward each sea-mother is happy in having one little 'pup' to look after.

How the Seals Were Saved.—"At one time there were two or three millions of seals thronging the black Pribilof beaches; but sealskin coats became fashionable, and hunters besieged the islands. Uncle Sam drove them away, but

from the decks of their ships they watched until Mother Seal left her pup for awhile, took an excursion for fish, and came swimming by. Then a rifle-shot rang out. Mother Seal never came back, and her pup starved. The seal-herds

Reproduced by permission of the Philadelphia Commercial Museum

These men are killing seals on the Pribilof Islands. Seal fur is both beautiful and durable. Regulating the killing of the seals is called "conservation". What other examples of conservation by the United States government can you name?

shrank until it seemed that man would wipe them out like the buffalo-herds."

"I think that was just too cruel for anything!" cries Ruth. "What happened then?"

"Well," says the captain, smiling, "Uncle Sam finally settled matters so that the hunters were kept from killing the poor mothers."

"But what about the fathers?" questions Alice. "Where do people get the sealskins now?"

"No, the fathers aren't killed, either, I'm glad to say," replies the captain. "Only the young bachelors, without families, are taken. Their coarse gray outer coat, which sheds the water, is plucked out, leaving the fine brown underfur, which keeps them warm; and this is dyed dark-brown. Once the skins were sent all the way to London for dyeing; but we have found that in St. Louis we have men who can do that just as well."

"I suppose the seals are increasing now," Jack remarks.

"Yes," comes the answer, "they have more than doubled in numbers during the last seven years, and before long there will be a million of them. Strange, to say, however, the ladies have lost some of their fondness for sealskin, so the Pribilof Islands are not so valuable to Uncle Sam as they once were. Now it is time for you to land at Seward."

Uncle Sam's Railroad.—"Go north, young man, go north!" shouts Fred as he climbs into the train for Fairbanks, nearly five hundred miles away.

"Do you know, Fred," says Ruth, "that Uncle Sam built this road and runs it, too? It wouldn't have been put through if it had depended on private money, but Alaska needed to be opened up."

"Well, I'm glad Uncle Sam built it, but I notice that I have to pay my fare just the same," replies Fred, with a smile. "All right, conductor, go ahead."

"Perhaps," returns the conductor, "when I show you Mt. McKinley to-morrow, you'll think your fare was well spent. That's the highest mountain in North America, but there are plenty of other high peaks in the Alaska Range, as you will see."

The Great Stampede.—When, after a weary journey of more than five hundred miles, we at last reach Fairbanks, we begin to understand how big Alaska really is. Having passed through the coast mountains, we have come into the Yukon Valley, the true heart of this country. One of our Fairbanks friends, Mr. Douglas, becomes our guide and instructor.

"What does Alaska produce for us beside fish and fur, Mr. Douglas?" asks Jack, thirsty for information.

"Minerals," quickly returns Mr. Douglas. "What do you think brought the Great Stampede, the rush to Alaska in 1898? It was gold. The summer before, a ship came into San Francisco harbor with more than half a million dollars' worth of Alaska gold on board. A rich strike had been made on Bonanza Creek. As soon as the news spread abroad, thousands and thousands of men, and even some women, flung themselves into the wild North, crazy for gold. On the winter trails many of these invaders starved and froze; in the rushing rapids they drowned; but the rest went on and spread far over Alaska.

Placers and the Mother-Rock.—"Since those days, gold has been the chief of Alaska's exports, and to the value of hundreds of millions of dollars it has come to the United States. At first the gold was gathered only during the short summer from the sand and gravel of river-bars; for the soil of the interior of Alaska is always frozen, no one knows how deep, except the top layer, which thaws for just a couple of feet or so during the summer.

"Now, however, work goes on in many places all through the winter. The icy ground is thawed by steam, the 'pay-dirt' is hoisted to the surface, and is left there to be washed when the abundant water of summer is at hand. In other spots, dredges like those of California do the work of

separating the gold better and more easily than did the clumsy tools of the former miners."

"Do these 'placers' ever give out?" asks Ruth. "Yes," answers Mr. Douglas, "of course they do; then the miners

Courtesy Rau Studios

This Yukon steamboat carried on one trip more than a million dollars' worth of nuggets and gold-dust.

move to a fresh camp, and the old settlement falls into decay. All along the Yukon Valley are abandoned 'cities' that once were thriving. For a long time men have searched for the mother-rock, the veins of gold-quartz from which came the gold of the sand-bars; but they have found these veins in only a few places.

"The greatest of these quartz-mines are on an island, named after one of my family, across from Juneau, and there are other mines boring under the streets of Juneau itself. Enough gold-rock is there to keep them busy for nearly a hundred years. There is plenty of copper in Alaska, too, and most of the scarce tin ore that Uncle Sam owns is here. Yes, there's a great deal of good coal, but the hauling costs too much. You see, our country is really very rich in minerals."

The Mighty Yukon.—Fairbanks, which has but a few thousand people, is a big city for Alaska. It has a central heating plant, electric lights, a public library, and its homes, many of them built of logs, are very comfortable. Many placer-mines lie about the city.

Before the government railroad reached Fairbanks, that town had a short railroad to the near-by mines, but depended for its supplies on steamboats. Fairbanks is on a side-channel of the Tanana River, and a stern-wheeler takes us down until the Tanana melts into a still broader and more powerful stream, the mighty Yukon.

This Yukon River flows right across Alaska from east to west, and is the country's great waterway. As its mouth in Bering Sea is well on to a thousand miles away, we do not continue our voyage; instead we settle down for awhile in a log cabin and talk with the "old-timers."

The Dogs in the Cold.—"Isn't it very cold here in winter?" questions Alice. "Yes, indeed," says a bearded miner. "You'd call fifty degrees below zero cold, wouldn't you? And I've seen it eighty below, too. The warming ocean winds don't reach us here in the Yukon Valley. However, we bundle up in furs, and we scarcely feel our dry cold as much as you feel a damp cold when the thermometer is around the zero mark.

"Of course," continues our friend, "when the 'strong cold' is abroad, we usually stay at home, for in case of accident a man would soon freeze to death. When my breath crackles as it comes from my mouth I know it's time to

Courtesy Philadelphia Public Ledger
A dog of Alaska carrying a gold prospector's outfit. These dogs fight fiercely among themselves, but are very strong and intelligent.

beware. Naturally, the Yukon freezes over, and it stays frozen so long that steamboats can travel on it only four and a half months, from about the middle of May until the beginning of November.

"When the ice stops the boats from running, we get out our dog-sleds to carry us and our goods over the snow-

trails and the frozen rivers. The furry dogs don't seem to mind the bitter cold, and if need be, they can live and work on a couple of pounds of dried fish a day. I'm very fond of my team of dogs, so I take good care of them.

"Every night, on the trail, I cook a pot of rice and tallow for them to add to their fish. Then I cut some spruce branches for their beds, and each dog curls himself up, folds his bushy tail over his nose, and goes off to pleasant dreams. Sometimes they fight, but that is just for a little excitement. Without dogs, this Yukon Valley would be badly off in winter, I tell you."

In the Summer.—"What about summer-time?" asks Ruth. "Well, with the coming of the long days, so much longer than yours, under a bright sky, spring comes with a marvelous rush," answers the miner. "Flowers come up as if by magic, and in a short time the country is transformed. In July the thermometer goes up to ninety degrees, and that's hot, isn't it? You'd think so if you were carrying a heavy pack on your back over soft ground, for the thawing earth makes bad tramping. And oh, the mosquitoes! Generally we have to wear nets over our heads and put on heavy gloves, or we'd be stung to death. Even the wild deer, the caribou, have to keep on the hills to avoid these pests. Between mud and mosquitoes, summer travel overland in Alaska isn't any picnic except on the railroad."

QUESTIONS AND SUGGESTIONS

1. How many times could your state be contained in Alaska?
2. In "The Story of Matka," by David Starr Jordan, read about the adventures of Matka the fur-seal.
3. "The White Blanket," by Belmore Browne, tells the story of George Draper and Fred Morgan in the frozen solitudes of an Alaskan winter. Mr. Belmore Browne tried to climb Mt. McKinley, but did not succeed in reaching the top.
4. "The Boy with the U. S. Fisheries," by Francis Rolt-Wheeler, describes the fight of the old bull-seals and Colin's experiences with Japanese poachers on the preserve.

CHAPTER VI

ALONG THE YUKON

Growing Crops.—As we walk about, Fred's quick eyes spy some fine-looking, well-kept gardens. "Look, Jack!"

Courtesy Philadelphia Public Ledger

A field of potatoes in the Matanuska Valley, Alaska, yielding more than six hundred bushels to the acre. Will Alaska be a great agricultural country?

he cries. "There are potatoes and turnips and cabbage and lettuce. Why, I didn't know they could raise such things near the Arctic Circle!"

Fred hasn't taken into account the long bright days of summer in the Yukon Valley. The warming, thawing earth

supplies plenty of moisture for the fast-growing plants. Berries and flowers cover the hills, and although vegetables are not planted until the ice goes out of the Yukon, they do very well in the short season of four months; indeed, they get more sunshine than do most of our garden crops. Hay is harvested in Alaska, and even barley and oats are raised, though wheat does not ripen well, and corn is out of the question.

Flying Down the Yukon.—Now we take an airplane, flying west and south toward the Yukon mouth. "How muddy the Yukon looks!" declares Alice. Yes, it would be muddy even if it didn't cut away its banks, for the Tanana and many other rivers carry into it "rock-flour" ground off by glaciers from their beds.

Because the Yukon cuts away its forested banks it is full of driftwood. Sometimes steamboats have to tie up and wait until the water falls and leaves the wood on the sand-bars. This driftwood which the Yukon pours into Bering Sea brings a blessing to the Eskimo on the shore, for it is the only wood that he has for timber and for fire. A traveler says: "The salt water sends up its fish to feed the people of the interior, and the interior sends down logs to warm the people of the coast."

As our stout plane swoops low along the river, once in awhile we see steamboats pushing loaded barges before them. Sometimes appears a little settlement of white men or a camp of Indians; creaking fish-wheels revolve slowly in the current, scooping up salmon that cannot see in the clouded water; but for long stretches the big river is lonely indeed. In many sections people are growing fewer instead of more numerous.

After a time the spruce forest fades away, and in its place comes a vast stretch of green, white, or brown moss,

broken only by a few stunted willow-trees. This is the tundra country, which stretches in a broad belt around the western and northern parts of Alaska. So we come to the delta of the river, where the Yukon divides into several channels and pours its mud and its driftwood into Bering Sea. This is as low and uninteresting a land of mud-banks as the delta of the Mississippi, and is even more deserted and dreary.

The delta mud makes the sea so shallow here that vessels can find no port, so they must go northward to St. Michael, which began with a trading-post established by the Russians in Andrew Jackson's time. A tiny Russian blockhouse with little rusty cannon still stands. Even at St. Michael, ocean-going vessels must anchor a mile or so from shore, so it is not the best port in the world.

Children of the Cold.—On the tundra near St. Michael we come to earth, and as soon as we get our breath, our friends take us out to see the homes of the Eskimo, the "children of the cold," who inhabit the coast from this point northward. As it is summer, they are living in tents, and most of their usual fur clothing has been cast aside. Every one is busy in some useful way, making sleds, sewing garments, whittling out bows and arrows, or carving bone.

The Eskimo look at us with bright black eyes and smile at the girls and boys, showing gleaming white teeth in their wide mouths. Their eyes have a slight slant like those of Chinese, and their complexions are not so dark as those of the Indians. Indeed, Ruth calls out: "See that dear little girl with red cheeks." The Eskimo are rather short and chubby, for people of that build stand the cold best, but the baggy style of their dress makes them look more chubby than they really are, and a few among them are quite tall.

"Do the Eskimo live in tents through the winter?" asks

Alice, with a shiver. "Oh, no," explains our guide, "come over here, and you can see their ig'loos or winter homes. These are timber huts, whose rounded roofs barely show above the ground. In these igloos, sheltered from the bitter winds, a seal-oil lamp of stone serves for the simple cooking,

Courtesy American Red Cross

Three of these little natives of the Arctic are Junior Red Cross members. The fur-lined calico coats which the little Eskimos wear are called "parkas." What questions would you like to ask these girls?

and makes the home so warm that often the family have to lay aside some of their clothing. A little light, you notice, comes in through this small window made of skin from the intestines of the seal."

"It strikes me that the Eskimo make good use of the seal," chimes in Jack, who can't keep quiet very long. That is true, for the Eskimo have been called "people of the sea and the seal." The seal gives them their meat, their clothing,

their butter, their kerosene, their glass—how could they do without that animal?

A cheerful, kindly folk are the Eskimo people. Many a white man has been fed and sheltered in their warm but smelly huts. They are brave, too. In their little boats they go forth over the icy waters to harpoon that biggest of animals, the whale. Only men of courage would face the danger of the sea and of the fight as they do.

Shaggy Blessings.—Now Ruth sees, out on the tundra, a group of hairy brown-and-white beasts, whose horns look, at a distance, like a dwarf forest. "These are reindeer," says our friend, "and you may call them the blessings of Alaska." By a hundred questions, Jack and Fred soon learn the story of the shaggy "blessings."

Some years before the great gold rush, a wise missionary saw that the Eskimo were in danger of starving because the white men's guns had killed off most of the walrus and the whales. The herds of caribou had been hunted into the interior. What would the poor Eskimo do?

"In Siberia, just across narrow Bering Strait from Alaska," thought Mr. Sheldon Jackson, the missionary, "the natives are of blood like the Eskimo, and they live comfortably because they have herds of reindeer, which our Eskimo do not possess. The reindeer, like the cow, supplies milk and beef and skins. I will ask Uncle Sam to get some reindeer for his Eskimo." But Uncle Sam turned a deaf ear.

Mr. Jackson Succeeds.—Not discouraged, Mr. Jackson raised money from kind-hearted friends, bought a few Siberian reindeer, and brought them over to the western coast of Alaska. When Uncle Sam saw how the reindeer thrived and grew fat on the moss of the tundra, he began to help. From far-off Lapland, in the north of Europe, came

expert herders who taught the Eskimo how to take good care of the reindeer.

Now on the west coast, from St. Michael up to Point Barrow, Alaska's northernmost cape, reindeer are numerous, and like the fur-seals, are fast increasing. They have made the Eskimo much more prosperous. Though the deer are

Courtesy Philadelphia Public Ledger

Reindeer pulling sledges along the Yukon. When snow covers the moss which is their food, the reindeer dig down with their sharp hoofs until they reach the moss. How have reindeer helped the Eskimo?

used to some degree for drawing sleds, dogs are better, because their feet pack the trail and do not cut it up. As a dairy and meat animal, however, the reindeer fills the bill. Some of the juicy reindeer meat is even shipped to Seattle and sold there. As threads that never break, the Eskimo women use reindeer sinews.

In our airplane we sweep back again up the long Yukon. To our left rise sharp rugged peaks, the Endicott Range. "Do you know, Jack," says Fred, "that this range is really a part of the Rocky Mountains? I traced them out on the map, and it shows that the Rockies turn and go straight west across Alaska."

"Well, what's behind those mountains?" replies Jack.

Fred doesn't answer, for he doesn't know; but north of the range really lies the Arctic desert, a dreary waste of tundra, with snow and ice all winter and swarming mosquitoes all summer.

When we reach our first starting-point at the Tanana mouth, Alice cries: "Let's take a steamboat and see how far up the Yukon we can go!" "Indeed we will!" shout the others; so on board we step. Again we watch the spruce-covered banks, and the driftwood on the muddy current. Ruth sees a bear on the bank eating juicy salmon-berries, and Jack discovers a moose swimming across the river.

After a long journey we reach the junction of the Yukon and the Porcupine, and the captain observes: "Now we are crossing the Arctic Circle, and that settlement just ahead is Fort Yukon. When the longest days of the year arrive, the people at this place can see the sun at midnight."

"How do the chickens know when to go to bed, then?" laughs Ruth; but the captain smiles as he quickly answers: "They don't keep any at Fort Yukon."

On moves our vessel for another long stretch until another settlement comes into view. This is Eagle, the last American town on the Yukon. Fifteen hundred miles of navigation across Alaska on one river and in one country! Few of the world's rivers can beat that.

"Good-bye, Alaska," Fred exclaims. "You're certainly a big land, and you have treasures of gold and copper and tin and coal, of timber and fish and fur; but you surely haven't many people. I wonder whether you'll have more or less at the end of the next ten years. I wonder whether other treasures will come from you for our benefit. Good-bye, Alaska!"

QUESTIONS AND SUGGESTIONS

1. From the maps, find other rivers in the world, beside the Mississippi and the Yukon, that have deltas. Make a list of them.

2. What can the Eskimo do that your friends cannot?

3. In his book on travel in Lapland, read Bayard Taylor's account of sledging with reindeer.

4. Hold a debate with your classmates on the question: Resolved, that a young man from this place would do well to try his luck in Alaska.

5. In "White Sox," by William T. Lopp, read about young White Sox, the reindeer, and how his mother trained him to become a leader of the herd.

6. In "The Purple Flame," by Roy J. Snell, you will find the story of plucky Marian Norton and her herd of reindeer.

7. "White Fang," by Jack London, will tell you of the dauntless wolf-dog who lived at Fort Yukon.

8. "Snowshoes and Sledges," by Kirk Munroe, gives the story of Phil and his Russian friend Serge as they took the "Chimo" up the Yukon.

CHAPTER VII

THE GREAT LONE LAND

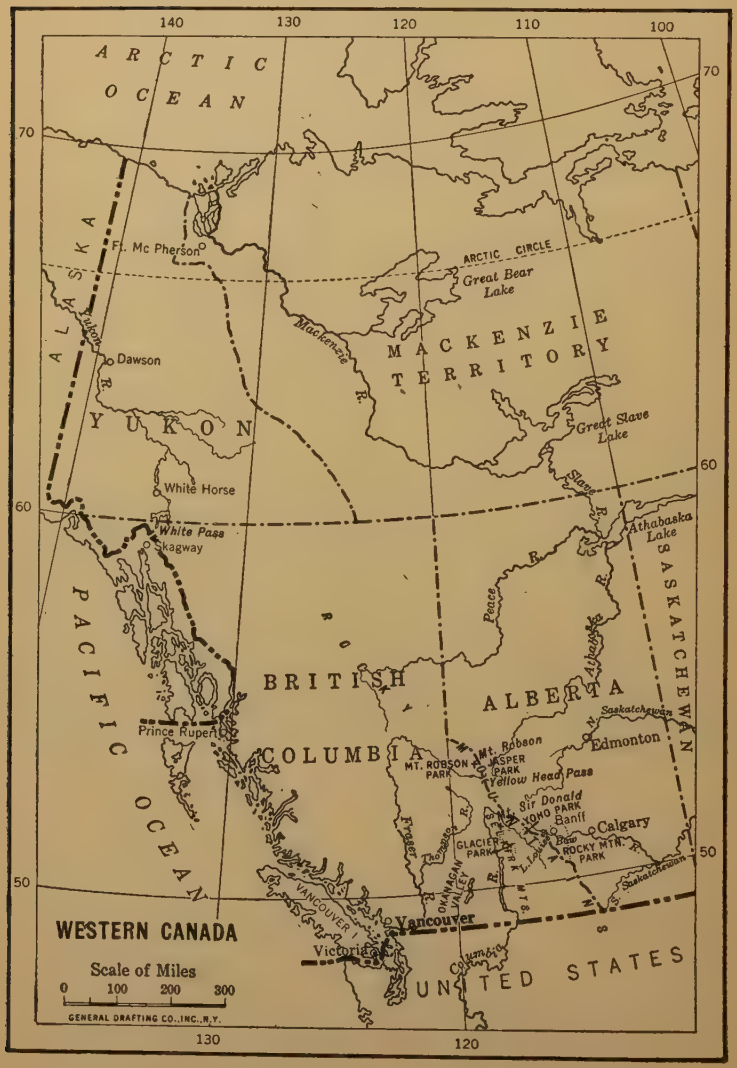
The Deserted Klondike.—Still our boat continues her voyage up the Yukon. A hundred miles after leaving Eagle

Courtesy Philadelphia Public Ledger Photo Service

On the shore of the Arctic at the boundary between Alaska and Canada. Note the two national flags. This picture shows the flat tundra and the ice floating in the Arctic.

we see the English flag floating over the little town of Dawson. This place was the centre of the Gold Stampede which brought so many people to Alaska. Here swift Klondike Creek flows into the Yukon, and it was on Bonanza Creek, a branch of the Klondike, that the first big strike was made; so this region was called the Klondike.

We are now in the Yukon Territory, one of the four


140
130
120
110
100
70
60
50
ARCTIC OCEAN
PACIFIC OCEAN
ALASKA
Ft. Mc Pherson
ARCTIC CIRCLE
Great Bear Lake
Mackenzie R.
MACKENZIE TERRITORY
Yukon R.
Dawson
YUKON
Great Slave Lake
White Horse
White Pass
Skagway
Slave R.
Athabaska Lake
SASKATCHEWAN
Peace R.
Athabaska R.
BRITISH COLUMBIA
ALBERTA
Saskatchewan R.
Prince Rupert
Mt. Robson
MT. ROBSON PARK
JASPER PARK
Yellow Head Pass
Edmonton
Sir Donald
YOHO PARK
Banff
Calgary
Fraser R.
Thompson R.
GLACIER PARK
Lake Louise
ROCKY MTN. PARK
Kootenay R.
Columbia R.
Saskatchewan R.
VANCOUVER I.
Vancouver
Victoria
Columbia R.
UNITED STATES
WESTERN CANADA
Scale of Miles
0 100 200 300
GENERAL DRAFTING CO., INC., N.Y.

northern territories of the Dominion of Canada. It is one-third larger than California, but oh, what a difference in climate and in population! Just a handful of people live in this immense region, and the numbers are growing gradually less. Here in Dawson we see many vacant houses. The gold has been worked out, and those who came only for gold have departed, leaving a lonely land. Dawson is still the trading town of the region, however. Its citizens are able to have fresh cucumbers and tomatoes from hothouses, and mealy potatoes raised on islands in the Yukon.

The Boat Goes On.—Some of our friends on the steamboat invite us to stay on board and finish the voyage with them. They will go on about seven hundred miles farther to a place called Whitehorse, at the foot of rapids whose waves toss their white manes and rear and pitch like bucking broncos. Many a gold-seeker has been swallowed up by those rushing waters.

At Whitehorse the steamboat must end her trip. The travelers will take a train and go across the Canadian boundary, through wild White Pass, until they come down to Skagway. There waits another steamer that will take them back to Seattle. But we have our faces stoutly set to explore much new country before we see our own United States again.

H. B. C.—At Dawson another airplane is ready, for only by airplane can we hope to cover in any reasonable time the immense distances of Northern Canada. Soon we are skimming northeastward toward the Arctic Ocean. Presently below us appears a wide yellow river. This is the Mackenzie, one of America's great streams, named after bold Alexander Mackenzie, a Scotch fur-trader. In the year when Washington became President, Mackenzie traced the course of this river to its mouth in the Arctic.

Like the Yukon, the Mackenzie has at its mouth or

mouths a vast delta. Just where the stream divides into the delta we catch sight of a settlement, and there we make a landing. We have come to Fort McPherson, one of the

Courtesy Philadelphia Public Ledger

Skagway, Alaska. The town is here because White Pass offered a road to the gold-seekers. A railroad now runs through the pass. Sometimes the snow lies deeper than the smokestacks of the locomotives and snow-plows must cut a road.

most northern posts in America. A few whites and a crowd of Indians stand ready to greet us.

One of the whites is a fur-trader or "factor." As he entertains us, he is willing to tell us all that he can. "What is the meaning of those letters 'H. B. C.' that are on your store-building?" questions Jack.

"They stand for 'Hudson's Bay Company,' my boy," answers the factor. "It's one of the greatest trading companies of the world, and I am proud to represent it. Before

your great Quaker, William Penn, ever came to America, the H. B. C. began its buying of furs from the Indians of Canada. For many years no other company was allowed to

Reproduced by permission of the Philadelphia Commercial Museum
This factor at the H. B. C. post is sorting over 35,000 dollars' worth of furs. Black fox skins, very valuable, are hanging on the wall.

trade in Canada, so the company made immense profits. It still has numerous stations throughout the northern country, and does a large business."

"Do you pay the Indians in money for their furs?" speaks up Fred.

"Oh, no," says the factor. "What does an Indian want with money? We give credit for the hunter's furs; then he takes blankets, traps, cartridges, food, anything that he needs, from our stock. Sometimes the hunter has a bad winter and cannot bring in enough furs to pay for what he must have; but we give him credit just the same. The Indians are grateful, and think the company is a good friend. They always pay us back some time. On our part, we are proud to sell only goods of high quality. The Indians, when they wish to say anything is first-rate, declare that it's like H. B. C. goods."

Eskimo and Caribou.—East and west of Fort McPherson stretches away the Arctic tundra, and out in the icy ocean, north of the tundra, are many big islands. Ruth wants to know if Eskimo live along the shore as they do in Alaska.

"Yes," the factor answers, "there are Eskimo, but not nearly so many as Alaska has. Our government is following yours in trying to give the Eskimo herds of reindeer so that they may live comfortably. If the white men shoot off the Eskimo's seals, whales, and walrus, the white men ought to give the Eskimo something good in return."

To the east of us is a big lake, considerably larger than Lake Erie. This is Great Bear Lake, and between it and Hudson Bay are the Barren Grounds. Over the tundra here roam thousands upon thousands of caribou, which are like wild reindeer. The caribou feed on the whitish moss of the tundra, just as the reindeer do. At the approach of winter the caribou move southward in an immense herd to the edge of the timber. Over the Barren Grounds also roam small groups of musk-oxen, that look like small brown hay-stacks or hair-stacks walking through the snow. How they find enough food to keep them fat and warm through the terrible winter is hard to imagine.

"Please, Mr. Factor, tell us about your great Mackenzie

River," begs Alice; so the factor spreads out a map for us. "Look here," says he, "this is longer than the Mississippi without the Missouri. From the Rocky Mountains come various rivers that form the Athabasca; then, at Athabasca Lake, it is joined by the Peace River and becomes the Slave, which falls into Great Slave Lake and comes out again as the Mackenzie. For eighteen hundred miles, steamboats navigate it; but, of course, they can reach us up here at Fort McPherson only in the summer months."

A Great Dominion.—"Since we're studying geography, let's learn some more about Canada," Fred proposes. "All in favor say aye. The ayes have it. Go ahead, Mr. Factor, if you will be so kind."

"Well," says our good friend, "the real name of Canada is the Dominion of Canada. We celebrate Dominion Day on July first, while you have Independence Day on July fourth. In 1867, just after your Civil War, which made the United States a stronger nation, various portions of English land in North America were put together to form a new nation, the Dominion of Canada.

"Canada is bigger than the United States and Alaska put together, yet she has less than one-tenth as many people. You see we have plenty of room to grow. A large part of our land, though, cannot be farmed, being in mountain, in forest, or in tundra. The Dominion is made up of various provinces, whose names you will learn as you travel through them. Fort McPherson, however, is in what we call the Northwest Territories, which are mostly waste and wild."

"Doesn't Canada belong to the British Empire?" speaks up Ruth.

"Yes, in a certain way. From London comes a governor-general, who is supposed to rule Canada, but really he is a good deal of a figurehead. The country is governed by a Parliament, which is like your Congress, and the governor-

general agrees to every law that Parliament makes. Each province has its Parliament for its special affairs, too. Of course, Canada feels very close to the British Isles, but, except for that feeling, there's nothing that keeps her in the British Empire. A great deal of her trade is with the mother-country, but she sends no tax-money across the water."

The Fur Region.—Taking to the air again, we make a great circle above Central Canada. Below us stretches a vast extent of dark forest, broken here and there by a rapid river or a broad lake. We see the Peace and the Athabasca rivers, and Jack picks out Great Slave Lake and Athabasca Lake. In the distance we see the gleam of Hudson Bay, where Henry Hudson, set adrift by his mutinous crew, met a mysterious fate.

Courtesy Philadelphia Public Ledger

A Canadian trapper with his team of wise dogs. Wouldn't it be fair to let them take a ride for once?

This immense forest region is the great fur region of North America. Hundreds of thousands of square miles are fit for nothing at present but to grow trees and support

wild animals. About a hundred thousand Indians and a few white men are scattered over this wide expanse, and earn their main living by trapping.

Of course the trapping is all done during the cold weather, because then the "pelts" of the animals are thick and glossy. The trapper puts out a "line" of a hundred or more traps, baits them with meat or puts on them some strong-smelling stuff that attracts the wild creatures; then he hides the traps under the snow. Day after day, through the long winter, on his snowshoes he makes the round of his trap-line, killing and skinning the animals that have been caught, rebaiting and resetting the traps.

When summer comes, and the fur grows poor in quality, the trapper takes his family and his load of furs and sets off in his canoe for the nearest trading-post. There he sells his pelts, orders his supplies for the next winter, and then, before returning to his trapping district, spends a while at the post, resting, picnicking and gossiping with his trapper friends whom he has not seen since the previous summer.

QUESTIONS AND SUGGESTIONS

1. Draw a picture of the English flag seen at Dawson.
2. Make a map of the navigable part of the Mackenzie River.
3. Report how the pioneers of the United States managed business without money.
4. What kinds of furs come from Canada? Make a list.
5. In "The Land of Big Rivers," by A. M. Chisholm, read about Bob, who lived on the Carcajou River, and, with his friends, found the lost cache of stolen furs.
6. In "Rising Wolf, the Young Blackfoot," by James Willard Schultz, you will find the true story of Hugh Monroe and how he joined the H. B. C.
7. "The Fur Bringers," by Hulbert Footner, tells how Ambrose Doane and John Gaviller tried opposite methods in trading and what came of it.
8. "Young Alaskans in the Far North," by Emerson Hough, is the story of three boys' adventures on the Athabasca, the Slave, and the Mackenzie.

CHAPTER VIII

THE MOUNTAIN PROVINCE

British Columbia and Jasper Park.—West and south we speed, and then we find ourselves looking down upon an enormous mass of mountains that fills all the western part of Canada. It is the northward extension of the Western Highland of our own country. In Canada this mountain mass is called the province of British Columbia.

British Columbia stretches below us like Switzerland, with forest, peak, and glacier; but it is so big that twenty-five Switzerlands could be tucked into it. Much of British Columbia is not yet well explored, but it is a paradise for daring mountain-climbers. There are three hundred peaks that are more than ten thousand feet high. On account of its beautiful scenery and its bracing summer air, Canada has made in British Columbia, or adjoining it, several fine national parks.

Our plane swoops down to land us in Jasper Park, the largest park in the world, one-third bigger than our own Yellowstone. It rests on the eastern slope of the Rockies, in the province of Alberta. Hundreds of mountain peaks, most of which have never been climbed, rise into the sky. Here we rest for awhile. The boys go on hiking or climbing parties while the girls are out canoeing or fishing. Sometimes we all take a substantial lunch, jump on ponies, and ride off for a day's exploring along forest trails. Once in a while our guide leads along a packhorse train loaded with supplies for several days; then at evening a bright campfire blazes before our tent encampment.

Courtesy Canadian National Railways

Climbing in Jasper Park. View from Portal Peak.

Over Yellowhead Pass.—To get back into British Columbia we follow the railroad from Jasper Park over Yellowhead

Courtesy Canadian National Railways

A mountain lake, Jasper Park. What trees are in the foreground? The trees of these mountains are nearly all evergreens. Why?

Pass, the lowest route through the Canadian Rockies. "Tell us about these names, if you can," is curious Jack's request. Well, in the early days before there were any railroads, a

fur-trading company sent to this district, as their agent, a man called Jasper Hawes. Jasper's appearance was marked by a great shock of yellow hair, so you can see that the Indians and the trappers immediately called him Yellowhead. The company called the post over which he ruled Jasper House. So arose the names of the park and the pass.

On the western side of the pass is Mount Robson Park, much smaller than Jasper Park, but equally charming. Our train stops awhile to let us gaze at Mount Robson, monarch of the Canadian Rockies, crowned with snow and gleaming against the deep-blue heavens. "Though it's not so high as our familiar Pike's Peak, I must admit that Mount Robson carries off the beauty-prize," remarks Alice.

Down the Fraser.—Southwest we travel. The track leads along the course of those rushing rivers, the Thompson and the Fraser, which have cut deep canyons in many places. The Fraser River is the greatest stream of British Columbia. Now it is in flood, as it gathers the melting snows from the mountains. As we look into the depths of its valley we value more highly than ever the bravery of venturesome Simon Fraser, who safely passed all its rapids and whirlpools and followed its course to the ocean. "That was about the time Lewis and Clark made their expedition; I read at Jasper Park the history of Simon Fraser," speaks up Ruth unexpectedly.

Down through the centre of British Columbia stretches a long plateau, between the Rockies on one side and the coast mountains on the other. It is very much cut up by deep valleys which the streams have made, but it is a plateau in general, and we are now passing through it. The mountains on the west cut off rain from it, so, although there are large lakes to be found, the plateau climate is dry both in winter and in summer. Bunch-grass, instead of trees, covers

much of the level parts, so it is a country for grazing. We cannot see this from our train, however.

" There's a town that looks like a mining settlement, for I don't see any farm-land around it," says Fred, as we speed

Courtesy Canadian National Railways

The Three Sisters. From snow to river.

along. " Yes," replies Alice, " I've learned to expect mining in the mountains."

Fred and Alice are right; there are many mines in British Columbia. There is gold like that of Alaska, there is copper like that of Montana, and there is plenty of coal. Gold was first discovered in the province when the placer-mines of California were beginning to give out, so a great many Americans rushed up to make their fortunes across

the border. Along with this mineral wealth there is a vast amount of timber, but away from the coast and the main line of this Canadian Pacific Railroad, the time for lumbering has not yet come.

After a time Jack nearly falls out of the car-window. "Look," he cries, pulling Fred's arm, "there's a man catching salmon. And there's a little steamboat trying to buck that swift current!"

"Yes, you're right," answers Fred. "We must be getting near the ocean." Sure enough, before long the Fraser River leads us to Vancouver again, Vancouver that is the child of the Canadian Pacific Railroad.

The Columbia Country.—Once more we start off from Vancouver. For awhile we retrace the Canadian Pacific route along the canyons of the Fraser and the Thompson, then we continue eastward through a country of lakes, part of the big plateau that we mentioned. A broad-hatted man sits down beside Jack. "Are you a rancher, sir?" says Jack politely. "Yes, I am, and proud of it," returns the man. "How many cattle do you own?" continues inquisitive Jack. "Not one head!" declares the Canadian. "I have an apple-ranch in the Okanagan (O-ka-nah'-gan) Valley that pays better than any cattle. Our Canada orchards are like those which you have in Washington and Oregon."

Just then, taking a look out of the window, Ruth sees that we are crossing a rapid river. "Would you mind telling me what river this is?" she asks the conductor. "That's the Columbia, miss," he answers. "Oh, goody!" exclaims Ruth. "Red apples and the Columbia River! I can surely imagine we're on the other side of the boundary line."

Beyond the Columbia River we come to Glacier National Park, and stay for the night at a fine hotel. "Is this park

a neighbor of our Glacier Park in Montana?" Alice would like to know. No, it does not touch our Glacier Park, nor is it even a neighbor. This Canadian park is some distance from the boundary line, and lies north of Washington, not of Montana. It is also situated in the Selkirk Mountains, and not in the Rockies. The Selkirks alone have as many glaciers as all those in the Alps of Switzerland.

From the hotel windows we see a wide prospect of snow-fields and glaciers lying among the peaks. One immense glacier seems almost next door, though really it is two miles away, and not far from it towers up Mount Sir Donald. On the porch of the hotel stand two sturdy men. They wear heavy jackets, thick woolen stockings and hobnailed shoes, and carry light ice-axes; these are Swiss guides, used to ascending great heights, who will take us up Mount Sir Donald if we wish; but we prefer easier climbs.

Rocky Mountain Park.—Leaving Glacier Park and the Selkirk Mountains, we cross the Columbia River again; on the eastern side of its wide valley appear the true Rockies. Here are two more national playgrounds, Yoho Park on the British Columbia side, and adjoining it, Rocky Mountain Park on the Alberta side. We cannot take time to visit Yoho Park, beautiful as it is, but pass on over the divide into Rocky Mountain Park.

Almost as soon as we have crossed the divide we arrive at the "pearl of the Rockies," Lake Louise. The Indians used to talk of this spot as "the big snow mountain above the lake of little fishes," and, sure enough, here two mountains rear themselves far above the amazing blue of the lake, with a glacier descending between them. We are in the heart of the cliffs, with "scenes of beauty on every hand." One thing that delights the girls is the abundance of Alpine

flowers, beds of them, banks of them, springing even from the edges of the melting snowdrifts.

Banff we may call the capital of the Rocky Mountain Park, and if ever we find the Canadian Rockies subdued to the use of visitors, they are so here. Hundreds and hundreds of miles of roads and trails lead out from Banff. The

Courtesy Canadian Pacific Railway

Along the shore of Lake Minnewanka, Banff National Park. Fortunately much beautiful mountain scenery in Canada is now available to the automobile.

little town lies on the Bow River, with a magnificent scene spread out before it as if presented upon a stage. Here we tramp to great waterfalls, take an electric launch trip on the Bow River, or swim in the pool formed by hot springs. Jack takes especial pleasure in seeing the big buffalo herd in the Rocky Mountain Park, for these shaggy beasts, once in danger of vanishing entirely from the earth, have increased greatly in numbers since Canada has given them a protected home.

QUESTIONS AND SUGGESTIONS

1. Which do you think more delightful as a park, Jasper or Yellowstone? Why?

2. In chapters 15 to 21 of "Alton of Somasco," by Harold Bindloss, a story of British Columbia, read how Charley Seaforth and Okanagan Tom took crippled Alton home through the rapids of the canyons.

3. What kinds of mines are not in mountains?

4. What mineral product does Alaska have that is not found in British Columbia?

5. Why do Washington, Oregon, and British Columbia produce such famous apples?

6. Chapters 3, 4, and 5 of "Big Timber," by Bertrand W. Sinclair, tell of Stella Benson's new experiences in her brother Charlie's British Columbia lumber camp.

7. "Young Alaskans in the Rockies," by Emerson Hough, narrates how the boys crossed Yellowhead Pass and visited Mount Robson. It also tells of their adventures with mountain-goats, caribou, and grizzlies in the Big Bend country of the Columbia.

CHAPTER IX

ACROSS THE GREAT PLAINS

The City of Calgary.—Leaving the Rockies behind, we follow the Bow River down through the foothills into wide plains that stretch a thousand miles eastward, Canada's

Courtesy Canadian Pacific Railway

The Great Divide, between the great provinces. Where in the United States is the Great Divide?

"Big Farm." Three provinces, Alberta, Saskatchewan, and Manitoba, share in these Great Plains, which reach northward from the plains of Montana and North Dakota in our own country.

On the Bow River, near the western edge of the plain, we come to Cal'gary. Before the railroad was built, Calgary was a "cow-town." As Calgary is sheltered from rain-

winds by the Rockies, the country around is dry, and seemed fit only for grazing. Ranchmen found it especially good for that purpose, because at intervals during the winter a warm, dry wind, called the "chinook'," blew down from the mountains, making snow disappear as if by magic. Animals, therefore, did not starve out on the open range. When the Prince of Wales, son of the English king, visited this region, he liked its life so well that he bought a ranch near Calgary.

Now, however, a tremendous dam "impounds" the water of the river to irrigate land; thus, alfalfa, fruit, and many other crops are raised on thousands of farms. Being so near the mountains, Calgary sells to many mine-owners the supplies they need. There is coal near by, which would allow Calgary to be a manufacturing city even if the power which she gets from the river were absent. Great numbers of dairy cattle and beef cattle are raised in the neighborhood. Many tourists stop in Calgary before or after going to Banff. "Is it any wonder," exclaims Fred, as he looks at the big grain-elevators and packing-houses, "that Calgary is growing very, very fast?"

Riders of the Plains.—At Calgary we notice one of the chief stations of the Royal Northwest Mounted Police, called "The Riders of the Plains." These seven hundred men are the peace-keepers of all the west and northwest of Canada, an area nearly as large as the United States! From Hudson Bay to Dawson, through the Canadian Great Plains and Rockies to Vancouver, ride their hardy patrols. In winter they take to snowshoes and the dog-sled; in summer they often forsake the horse for the canoe.

"Tell me about some of your trips, please, sir," is Ruth's request to one of the trim, athletic "Mounties."

"Can't tell you about mine," says the officer thoughtfully, "but one of our men was sent to the North to inquire into

a supposed murder among the Eskimo. He traveled nearly eighteen hundred miles by canoe and dog-sled, and it took him almost four and a half months to finish that little piece of business. Every Canadian white and Indian knows that

Courtesy Canadian Pacific Railway

One of the Royal Mounted giving directions to tourists in the Canadian mountains.

our motto is, ' Get Your Man,' so it is possible for the few of us to keep the law respected.

" Another time a corporal of the Mounted was sent for in winter to attend to a lunatic more than six hundred miles away. Alone he made the trip overland and came back with the raving man strapped to the sled. It took him six weeks—but he brought the lunatic back safely for treatment."

" Honor to the Northwest Mounted! " cry the boys when Ruth repeats the trooper's story.

The Granary of Canada.—After traveling two hundred miles toward the Pole from Calgary, over treeless plains full of wheat-fields, we arrive at Edmonton, northernmost of the large cities of Canada. Standing astride the Saskatch'e-wan, Edmonton is near the edge of the fur country, where the forests crowd down upon the open plains, so the skins of beaver and mink, marten and fox, come into the city by many thousands each year. Wheat-lands north and wheat-lands south, stretching "from sky to sky," pour in their golden grain. Coal-mines circle this spot with their treasures of power. Edmonton has grown far, far beyond the limits that the "H. B. C." could foresee when its fort was planted here by the side of the river Saskatchewan.

Again we travel on, southeast across the Plains. On all sides of us the wheat waves its heavy heads of grain yellowing in the sun. We are now in the province of Saskatchewan, Alberta lying to the west and Manitoba to the east. It is easy to build railroads across this level land, and the railroads have made it easy for settlers to pour into this farming country. The Canadian Government gives away new land to those who will make their homes upon it, and the great crops here are wheat and oats.

"I remember what we learned about wheat climate in Uncle Sam's great wheat-belt," announces Alice. "Wheat needs plenty of moisture in its growing season, and I suppose the earth gets that here from the melting snow in spring. Then in the ripening season wheat needs dry weather, and I know these plains are dry in summer, so dry that trees don't flourish in most places."

Food for the World.—"Here's a sight!" calls out Jack. "Look at those horses pulling that harvester; the wheat almost hides them!"

At every station tower up the big grain-elevators, waiting to be filled with the golden crop. "This is just like our wheat-belt, but on a larger scale, isn't it?" says Fred.

"Before many years," declares a farming expert who is sitting near us, "the United States will be eating all of her own wheat and calling on Canada to supply some of her daily

Courtesy Canadian Pacific Railway

A line of reaping machines in Saskatchewan. The wheat of these prairies is spring or hard wheat. What is the difference between spring and winter wheat?

bread. There are only a few important countries in the world that produce a 'surplus' of wheat over what their own people need, and Canada is one of the greatest of these. She has so much wheat-land and so few people as yet, that she can export an immense amount of wheat to other nations."

Ruth rests her chin in her hand, thoughtfully. "I don't know whether I would like to live on one of these wheat-farms or not," says she. "Think of the long, cold winters on the treeless plains!"

"Pooh," answers Jack, "the long winters make people healthy."

"That's all right," Ruth replies, "but I want a fair balance between summer and winter, anyway."

Outlets for the Flood.—Some of the flood of wheat that pours out of Alberta, Saskatchewan, and Manitoba goes west through the mountains to Vancouver, and even helps to feed the people on the other side of the Pacific. Most of the wheat, however, is carried southeastward to the shore of Lake Superior. There, on Thunder Bay, not so very far from Duluth, stand the twin cities of Port Arthur and Fort William. While the Great Lakes enjoy their open season, the workers of these twin cities are kept busy receiving and sending out the wheat which the world desires.

So great is the wheat-flood that many Canadians said, "We must find another outlet. Most of our wheat goes eastward, not westward, and the St. Lawrence offers only one spout through which it may pour. Europe is calling for more and more wheat. Where is a second outlet?"

A new outlet seemed to offer itself through little-used Hudson Bay, which is as big as the Gulf of Mexico, though, of course, not so important. "Hudson Bay is closed by ice for all the year except three or four months," objected some people, but others answered, "Well, this hurry-up commerce will help a lot. Even the St. Lawrence is closed for nearly half the year, you must remember."

So the Canadian Government began to build a railroad more than four hundred miles long, stretching from the wheat-fields to Port Nelson on the Bay. Engineers built docks and breakwaters and elevators to make a good port out of Port Nelson; but the Great War began before the railroad had reached the port. Nearly a hundred miles of

track must still be built before the Great Plains can send grain out by the Bay.

Canada's Chicago.—Eight hundred miles from Edmonton, our Canadian National Railways train brings us to Winnipeg, the capital of Manitoba. Winnipeg stands on the bank of the Red River of the North, where the Assin'iboine River flows in. Ten years after our Civil War began, there was no Winnipeg on that spot, only a few hundred people clustering around Fort Garry, a stone stronghold of the "H. B. C." Now, however, Winnipeg is a city the size of Omaha or of Atlanta, and Fort Garry has been turned into an automobile clubhouse. As we walk along Winnipeg's broad and fine Main Street we can scarcely believe that all this growth and prosperity has come so quickly.

"Winnipeg is the Chicago of Canada, I hear," remarks Fred. "Why do you say that? It isn't nearly so large," Jack answers. "Well," persists Fred, "Winnipeg is near the end of a big lake, Lake Winnipeg, almost as large as Lake Erie. The Red River takes steamboats right into it. Then Winnipeg, like Chicago, is on the edge of immense plains. But most of all, Winnipeg is the grain centre of Canada, just as Chicago is the great market of our country. You should see the Grain Exchange here with its magnificent building and its efficient ways of grading and selling wheat, barley, and oats—of course, corn-raising is out of the question in nearly all of Canada."

"All right, I give up," admits Jack, with a long whistle of surprise.

"But you forgot one important thing, Fred," says Alice. "Lake Winnipeg stretches for three hundred miles north, and the country around its northern end is so much of a wilderness that it wouldn't support any railroad. Therefore, the railroad lines passing west in Canada centre in

Winnipeg at the southern end of the lake, just as Lake Michigan turns the railroad lines around its southern end to centre in Chicago."

"I agree with you, that's very important," nods Fred. "Winnipeg's nickname is certainly well deserved."

QUESTIONS AND SUGGESTIONS

1. From a wheat-map in your text-book, describe the line which shows how far north in Canada the wheat-farms extend.
2. Is it likely that wheat-raising will go still farther north? Why?
3. What countries beside Canada produce a surplus of wheat for the world?
4. "In the Great Wild North," by D. Lange, tells how Steve McLean and his father made the canoe trip through Lake Winnipeg, "The Lake of the Big Winds," and came to the region where Lord Selkirk's settlers were to found Winnipeg.

CHAPTER X

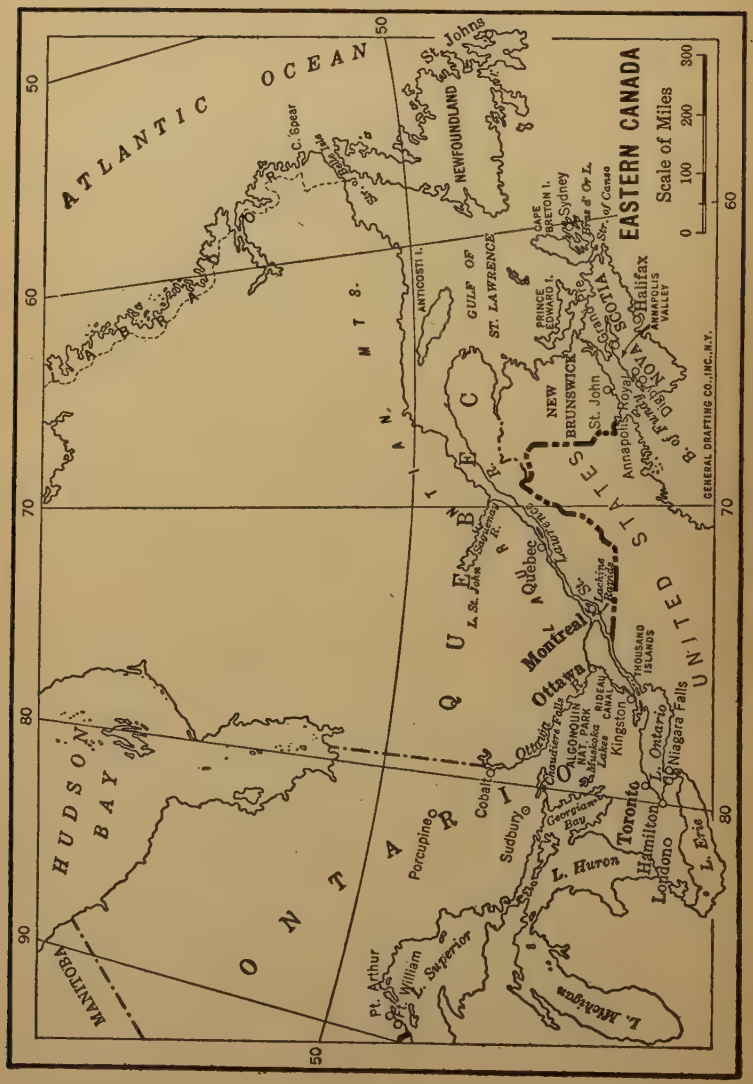
ONTARIO

Mines of Ontario.—Still southeastward we go, through a country of low hills, rocky ground, scattered forest and many lakes. We have reached the province of Ontario. As we ride along, some distance north of Lake Superior, we don't see many inhabitants. The rocky ground doesn't invite farming, much of the forest has been cut off, and the fur-bearing animals have been so trapped off that they are becoming scarce.

After a time we come to a region which lies in a direct line south of the southern arm of Hudson Bay. Here we find a land of mines, and these mines make Ontario Canada's greatest ore-producing province. First we visit the Porcupine gold-mines, then we stop at Cobalt, which has some of the richest silver deposits in the world.

"Why is this place called Cobalt?" asks Fred. "I think that's a funny name." "Oh, I found out from a man on the train," replies Alice. "There's a substance called cobalt mixed with the silver; and cobalt, mixed with other rather rare metals, makes an extremely hard material for tools. Beside that, cobalt gives us a beautiful blue color in glass and on porcelain. Now I like the name very much."

Not far south of Cobalt we reach Sudbury, which should be a famous place, for here are the greatest nickel mines on earth. "I never thought," shouts Jack, "why a five-cent piece is called a nickel. Isn't that interesting?" Just as a nickel is worth more than a copper cent, so nickel is more valuable than copper, but in our nickels there is only one-quarter nickel, the rest being copper.


EASTERN CANADA
Scale of Miles
0 100 200 300
ATLANTIC OCEAN
HUDSON BAY
MANITOBA
ONTARIO
QUEBEC
NEW BRUNSWICK
NOVA SCOTIA
UNITED STATES
NEWFOUNDLAND
St. Johns
C. Spear
ANTICOSTI I.
GULF OF ST. LAWRENCE
CAPE BRETON I.
Sydney
Brus d' Or L.
Str. of Canso
PRINCE EDWARD I.
Grand Pre
Halifax
ANNAPOLIS VALLEY
St. John
Annapolis Royal
B. of Fundy
Quebec
L. St. John
Saguenay R.
Lawrence R.
Montreal
Ottawa
Ottawa R.
Chaudiere Falls
ALGONQUIN NAT. PARK
Muskoka Lakes
RIDEAU CANAL
Kingston
THOUSAND ISLANDS
Niagara Falls
L. Ontario
Toronto
Hamilton
London
L. Erie
L. Huron
Georgian Bay
Sudbury
Cobalt
Porcupine
Pt. Arthur
Ft. William
L. Superior
L. Michigan
GENERAL DRAFTING CO., INC., N.Y.

We stay over at Sudbury to see these famous mines. We observe the cars coming up from the shafts carrying loads of ore, in which the nickel is combined with copper, iron, and sulphur. Then we watch the ore as it goes, like iron, to blast furnaces. After that, again, like iron, the melted metal

Reproduced by permission of the Philadelphia Commercial Museum

Miners' homes in the nickel-mining region near Sudbury. The sulphur fumes released in treating the ore kill vegetation, so that the region, already rocky, is also rendered barren.

is run into "converters," which blow away with their fiery breath the iron and sulphur, still leaving the nickel and the copper together to be refined later, perhaps in Canada, perhaps in the United States, perhaps in the British Isles. Probably the nickel-plating on the faucets and the rods in your bathroom came from the Sudbury mines.

"Just think," says Ruth, "in this wonderful mining country are all the metals we use in our money—gold, silver,

nickel, and copper. Mining ought to be profitable business here."

A Summer Playground.—South of the mining district is a great summer playground. On the west is Georgian Bay, a part of Lake Huron; on the east flows the Ottawa River. Between these limits lies a kingdom of nature, where lakes invite us to fish, streams tempt us to go canoeing, and beautiful woodlands entreat us to pitch our tent. The settled region is not very far away, and there are good hotels for those who do not have a taste for camp-life. "This country looks as good to me as the Adirondacks," declares Jack.

The Muskoka Lakes are perhaps the most famous of these clusters of waterways, while for the outdoors people who like a taste of "big water" there is beautiful Georgian Bay with its thousand islands. In this region, too, is Algonquin National Park, about the size of our own Yellowstone Park, and as full of game, though the animals are not quite so well used to visitors.

A Favored Region.—Before long we leave the rocky hills and the evergreen forest and come down into a lowland that is like the best farming land of New York or Pennsylvania. Three of the Great Lakes lie about it and help to make its climate mild. Settled by English people, it resembles a part of England. Small lakes and large forests are absent, and the land is thickly settled. Like our own Erie Plain, this lowland raises fine grapes, apples, and peaches. It is a good dairy country, and we see many grain-fields.

In this favored region of course towns are numerous. London is as big as Mobile, "but," Ruth decides, "it has a long way to go before it catches up with its enormous namesake city." Still, in order to honor Old England's London, Canada's London applies to its streets and buildings as many of London's famous names as it can. Hamilton rivals

Albany in size. "They say Hamilton does a lot of manufacturing," is Alice's remark, "but I don't see any smoky factory chimneys to indicate that." Next day, however, she finds out that "white coal" from the power of Niagara Falls is the secret of the clean factories.

"The Place of Meeting."—On Lake Ontario, not far from Hamilton, we find the great city of this productive lowland. While young Washington was earning his living as a Virginia surveyor, the French, those busy traders, came to the Ontario shore and built a trading-post. The Indians called the spot "Toronto," the place of meeting. A meeting-place of many people, indeed, it is to-day, larger than near-by Buffalo or far-off San Francisco, and it is proud of being the second city of Canada.

Toronto, naturally, is the capital of Ontario. On Queen's Park, in the heart of the city, are situated the government buildings, but the boys are more interested in the famous University of Toronto, which also borders the Park. It is the largest university of Canada. Around its Arts building, which looks like an old castle, are grouped college after college. Those who have traveled to Europe say that it reminds them of celebrated Oxford University. "I've read 'Tom Brown at Oxford,'" cries Fred, "and if Toronto is like Oxford, I'd certainly like to go there."

Many vessels passing through the Welland Canal come to the fine port of Toronto, and the big city makes it worth while for ships to visit the harbor. The vessels bring grain from Fort William or Port Arthur and take back Toronto products. Power for the factories, light for the streets, and heat for many buildings come from the Niagara Falls. Toronto, like Winnipeg, is often compared to Chicago. It slaughters many thousand animals at its packing-plants, it makes machinery for the farms of Canada, and its big

department-stores do a Dominion-wide trade. Two hundred or more branch plants of United States firms can be seen here, and help to give Toronto her "bustling" effect.

The Thousand Islands.—Keeping near the shore, we travel along Lake Ontario for more than one hundred and fifty miles, until we reach a town whose fortified look makes

Courtesy Canada Steamship Company

Grain elevators at Fort William. What grains beside wheat might be stored in them? These elevators betoken great fields to fill them.

us think that it must be very important even though not very large. This has a royal name, Kingston, and it guards the gateway of a royal river, for here the enormous St. Lawrence pours out of Ontario.

Just as the St. Lawrence begins, it spreads out into a maze of waterways thickly sown with rocky islands. This group is the famous Thousand Islands, shared between Uncle Sam and Miss Canada. "I wouldn't like to try to count them," says Fred. "No, indeed," replies Alice, "but

somebody counted them and says there are actually seventeen hundred."

Some of the Thousand Islands are nothing but points of gray rock, while others cover several acres. All about us, as our launch glides along, appear attractive cottages, and motor-boats, canoes, or sailboats dot the water. "Oh, look at the cunning little lighthouses," cries Ruth. "They sort of fit the looks of the little islands." Though many Canadians enjoy the "archipelago," Americans form the majority of the visitors.

When we return to our Kingston hotel, Jack discovers hanging on the wall a framed poem about the Isles, and surprises us by reciting:

"A thousand birds their praises wake
By rocky glade and plumy brake.
A thousand cedars' fragrant shade
Falls where the Indians' children played,
And Fancy's dream my heart beguiles
While singing of thee, Thousand Isles."

Victoria's Choice.—Morning comes, and we prepare to leave Kingston, where La Salle launched the first ship that ever plowed the Great Lakes. A steamer bears us along through the Rideau (Re-doe') Canal, which winds for more than a hundred miles past farm and forest until it brings us to Ot'tawa, the capital of Canada. Above us, as our steamer lies at the dock, rise the magnificent Parliament Buildings, outlined against the sky.

When the capital of the Dominion was to be finally settled, four cities claimed the honor—Toronto, Kingston, Montreal, and Quebec. Queen Victoria was asked to settle the question. Whichever one she selected would cause the others to be jealous; so the wise Queen passed over

all four and gave the honor to Ottawa, which was on the boundary between the two chief Canadian provinces, Ontario and Quebec.

On a cluster of rocky hills, where the Rideau River

Palisades, Pitawawn River, Algonquin Park, Ontario.

joins the Ottawa as it comes rushing down from the "Cobalt Country," stands this capital city. It has an Upper Town, whose people are mostly English, and a Lower Town, whose people are mostly French. We must remember that Canada

was French long before it was English, and that a large portion of the Dominion is French to-day in language and life. The Ottawa River forms the boundary between New Canada, English in its character, and Old Canada, which is the French stronghold.

Here in the Ottawa, are the big Chaudiere (Sho'-de-air) Falls, that plunge down forty feet and generate immense power. Other falls near the city help to furnish "white coal," making Ottawa a humming city of industry, yet a clean one. Down the Ottawa River roll great "drives" of logs from the forests of the interior, and Ottawa owns the largest sawmills in the world, by which she takes care of this timber. Ottawa, then, is before all else a lumber city.

As we leave towered Ottawa, Alice fittingly recites, in her sweet voice, a farewell verse:

> "City about whose brow the north winds blow,
> Gilded with woods, and shod with river foam,
> Called by a name as old as Troy or Rome."

QUESTIONS AND SUGGESTIONS

1. Many persons think that the name "cobalt" came from the German "kobold." What is a "kobold"?

2. Is nickel used more for being coined into money than for other purposes?

3. Sketch a map of Ontario's "Niagara peninsula" surrounded by lakes.

4. Make a list of the cities of Ontario and add an important fact about each city.

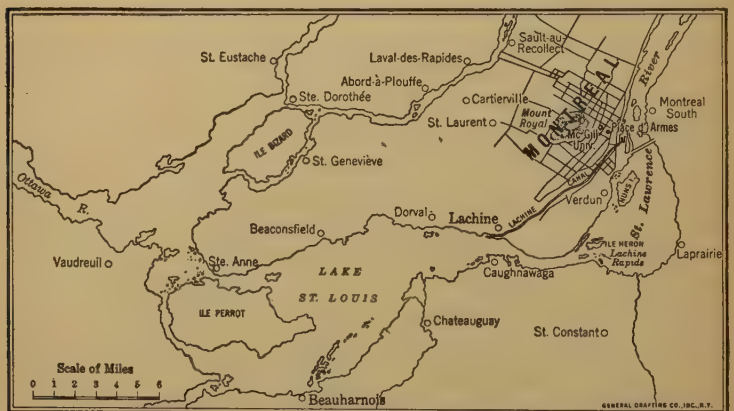
5. In "The Pathfinder," by Cooper, read how the Indians attacked the blockhouse on one of the Thousand Islands and how the squaw June saved Mabel Dunham.

6. In "Timber Treasure," by Frank Lillie Pollock, you will learn how Tom Jackson, of Ontario, missed his relatives and found the lost walnut raft.

CHAPTER XI

MONTREAL AND QUEBEC

Royal Mountain.—Another steamer bears us down the Ottawa, and a fine stream that is, for it forms the chief tributary of the St. Lawrence. Where it joins the St.


St. Eustache
Laval-des-Rapides
Sault-au-Recollet
Abord-à-Plouffe
Ste. Dorothée
Cartierville
Mount Royal
St. Laurent
Montreal South
Pte. aux Trembles
Pte. aux Prairies
Pte. aux Hures
Pte. aux Lièvres
Pte. aux Carrières
Pte. aux Vaches
Pte. aux Cerises
Pte. aux Oies
Pte. aux Canards
Pte. aux Oies
Pte. aux Canards
Pte. aux Oies
Pte. aux Canards

From that summit Cartier looked out and saw, over the forest, many miles away, the dark Adirondack heights, while nearer, toward the east, were the lighter-green elevations which he called the Green Mountains. But Cartier

Courtesy Canadian National Railways

Tobogganing down the slopes of Mount Royal. Doesn't that look like good sport? What is the difference between a toboggan and a sled?

did not found Montreal; that city was settled about a hundred years after.

"Let's go down to the river," suggests Ruth; so we turn our steps to the wharves which border the St. Lawrence. "Why, there's a big steamship starting out for England; just look at the crowd of passengers waving their handkerchiefs," Jack observes. Yes, Montreal is a seaport, and a

very important one, the greatest in Canada. Even though she is six hundred miles from the open ocean, she has a busy water-front as long as the river keeps open, which is about eight months of the year.

The New York of Canada.—Montreal lies nearer to England than does New York, and she would take much business away from Manhattan Island if the ice only wouldn't block up the St. Lawrence for months and months. Still, Montreal manages in many ways to be the New York of Canada. Fred, can you tell us how?

"Well," says Fred, considering, "although Montreal is only the size of Pittsburgh, she is the largest Canadian city, so there you have one point of likeness, anyhow. Next, she has a big passenger trade with Europe, and does a greater foreign business than any of her Canadian sisters—and, yes, she refines sugar, makes a lot of clothing, and beats New York in exporting grain. I guess that's about all I can think of."

"Can't the big steamships go any farther up-stream?" asks Jack. "No," Fred answers, "not far above these docks are the foaming Lachine (La-sheen') Rapids, that stop all vessels except those which are small enough to pass through a canal at one side. Montreal is just as far up the river as she can get, and is the greatest far-inland seaport in the world.

"These rapids," continues Fred, "once bordered the estate of La Salle, the explorer. He was sure that the St. Lawrence would lead him right through the continent so that he could sail to China, and some jokers called his estate Lachine, meaning China. Now the rapids make electric power for the city and so are a great benefit. Don't I know a lot to-day?"

Mighty Montreal.—" Now can't we really go to see the city? " petitions Alice; so turning away from the river we find our way to McGill University, founded by a Scotch merchant who made his fortune in Montreal. A short distance from the Place d'Armes (Plass Darm'), the centre of

Courtesy Rau Studios

Place d'Armes, with Cathedral of Notre Dame, Montreal.

the city life, we reach the Chateau de Ramezay', a low comfortable-looking building, gray with age. Thirty years before Washington was born, a governor of Montreal built this little " castle " as his home. When the American troops captured Montreal in 1775, Franklin set up a printing-press in the cellar of the old stronghold, but his pamphlets and posters failed to bring many Canadians to the side of the

invaders. Now the old Chateau is a historical museum, where we spend a profitable hour.

"Oh, see the market!" Fred exclaims. Sure enough, here is a busy, noisy place, with little carts drawn up in rows and country-people shouting praises of their goods. "But I can't understand them; what are they saying?" Ruth wants to know. "I think they're talking French," cries Jack. Yes, they are; for we're now in the French part of Canada, the province of Quebec, and two out of every three people in Montreal are French. One-fourth of all the people of Canada speak French as their preferred language, and in Quebec province it is the language of the schools. For many a year yet the French tongue will sound in Montreal streets.

The busy, noisy Montreal streets, with high iron stairways leading up to the houses, slope upward from the river to the mountain, and the city seems to fold itself around that centre. Fine driveways bring us to fine views, and in the distance Alice sees a monument, honoring Cartier. We leave Montreal with a feeling that it is a solid, dignified city even though it is going ahead so fast in its business. "The combination of French and English seems to work well here," laughs Ruth.

The City on the Cliff.—Now we take a comfortable steamboat down the broad St. Lawrence, and the elevators of Montreal fade from our sight. Past many a white village on the green shore we glide until, at the end of the day, nearly two hundred miles from Montreal, we see a city founded upon a rock—the city of Quebec.

"What a funny name!" says Jack, as we look at the cliffs.

"Yes, it's Indian," replies Fred, "and it means a narrow place, for the big river isn't very wide here, so it was a good place to put a settlement."

"Take a good look at the city before you land," a pleasant-faced lady advises, "for you can see many of the points of interest from this boat."

We use our eyes to good advantage. There is the Lower Town along the shore, and the Upper Town on the level land high above it. There at the left is the strong Citadel on Cape Diamond, and between the Citadel and the eastern edge of the city towers a magnificent hotel built like an old French castle. "Quebec certainly makes me think of a quaint town in the Middle Ages," cries Alice.

Conductor Fred.—After a pleasant night in the big hotel, we set out for a tour of the city. As Fred has bought a guide-book at the hotel news-stand, we forthwith appoint him our conductor. With a grand air, he feeds us choice bits of knowledge.

"Remember," says Mr. Conductor, "that Quebec is the oldest Canadian town. Who founded it? Answer by the name of a lake."

"Champlain, Champlain," shouts Jack, jumping up and down. "I got it first!"

Fred says no more until we reach Dufferin Terrace, a promenade extending for a quarter-mile along the edge of the cliff. Then he waves his hand. "Let me introduce you to Mr. Champlain," says he, and there indeed is Champlain's statue, seeming to watch over the land for which he spent his life. "How are you, Samuel, old scout?" says Jack, who must have his joke, but we notice he takes off his cap as he says it.

France and England.—Not far away is a monument set up to the memory of two brave enemies, men good and true, General James Wolfe and the Marquis de Montcalm. "Tell us the story about these heroes, Fred," begs Ruth. "Hop into this taxi, and I'll make a movie out of it," is the answer.

Our taxi takes us to the edge of the cliff, where we look

Courtesy Canadian Pacific Railway

Quebec, showing the Upper Town and the Lower Town. Many cities are built in this way; the lower town, being less desirable for residence, is given over mostly to trade. The railing at the top of the wall runs along Dufferin Terrace.

down on a tiny bay, Wolfe's Cove, where on that night of 1759 Wolfe's soldiers, escaping notice by the French, climbed up a steep path and formed in line upon the Plains of Abraham. The driver next points out, as we roll along over the battle-field, the spot where Wolfe fell and died, and then we go back to the gate through which Montcalm, fatally wounded, rode to the town to die also. They were gallant rivals, but one triumphed in his death and the other lost, for that battle gave Canada to England instead of France.

With great interest we climb up and down the flights of steps that unite the Lower and the Upper Towns, for the merchant in the Lower Town usually lives above on the top of the rock. We visit Laval University, McGill's friendly rival. We hear tales of Quebec's winter sports, of skating, tobogganing on the long slides, and skiing on the hills. More French salutes our ears than we heard in Montreal. We see daily newspapers printed in French, and the traffic signs and street names are given in both French and English. In the movies, both languages are used on the screen. "In many ways," we say, "Quebec reminds us of old France."

QUESTIONS AND SUGGESTIONS

1. Report to your class how Montreal was founded.
2. What luck did the Americans have in 1775, when they invaded Canada?
3. Tell the story of Wolfe's climb up the cliffs of Quebec.
4. Why did Jack take off his cap before Champlain's statue?
5. "By the Good Sainte Anne," by Anna Chapin Ray, is a story of Nancy's life in modern Quebec.

CHAPTER XII

OUR YACHT CRUISE

The Savage Saguenay.—As we return, tired but happy, to the hotel, whom should we see but a New York friend who is lucky enough to own a fine little yacht. Mr. Meade greets

Courtesy Rau Studios

Capes Eternity and Trinity on the Saguenay River. The stern and gloomy Saguenay is one of the most remarkable rivers in the world. Why?

us heartily, for friends who meet away from home always feel especially friendly. When he hears about our long trip, he says immediately, "Let me take you on your way and show you the end of the St. Lawrence."

"Thank you; if it isn't too great a trouble to you, we'll gladly accept," says Fred.

Next day the "Sprite" spreads her wings and dances away down the widening stream. Half-way between Montreal and Quebec we have already met the influence of the tide, but here at Quebec is salt water. Even though the open ocean lies more than five hundred miles ahead, the Atlantic has already stretched out a hand to us. We are in the "estuary" or salt-water portion of the river.

To the south of the estuary, on the low shores, we see fertile farms, but on the northern shore all is dark woodland and frowning cliff. More than a hundred miles below Quebec, where the river is almost twenty-five miles wide, the "Sprite" turns north to enter a strange stream. The mouth of it looks cheerful enough with its village, its waterfall, and its salmon hatchery, but when we are fairly within, we find ourselves in a narrow chasm where dark mountains rise steeply from dark water. It is a savage-looking place with scarcely a settlement for many miles.

"This is the Saguenay (Sag'-e-nay) River you're in," says Mr. Meade. "The name comes, they say, from the same Indian word that gives us 'Saginaw' in Michigan, and means river-mouth. When the French explorers asked the redmen the name of the river, the savages thought that the question was, 'Where are we?' and answered, 'You're at the mouth of a river.' So arose this title."

A Wild Canyon.—"It's interesting, but it makes me feel queer," Ruth whispers. "Is the water deep? It looks that way."

"So deep that vessels need no channel marks, for it's all channel," replies Mr. Meade. "This gash in the earth is a big furrow scooped out by glaciers. But look! we're coming to a fine sight!"

We have entered a small bay, and there before us stand two tremendous headlands, from whose tops the sun has hard work to banish the snow. On one side is Cape Trinity, with three summits, and on the other hand Cape Eternity, each being nearly one-third of a mile high.

"They're good names," says Alice, taking a long breath. "Now I want to know where the Saguenay comes from."

"From Lake St. John," our host answers, "and that lake lies in the Laurentian Mountains, or, as they are sometimes called, the Laurentides. The northern part of this province of Quebec is a maze of streams and lakes just like the rest of the eastern half of Canada, and the fishing is fine."

"I'm ready to go," says Jack, as the "Sprite" emerges again from the canyon. "That place nearly got my nerve."

Paper and Asbestos.—Now we go on along the St. Lawrence, clothed with spruce forest. The north shore is almost deserted, but on the south shore are various settlements, for the pulp industry flourishes. If it were not for Canada, many a Sunday newspaper in the United States would lose a number of pages. At least half the paper and pulp for our newspapers comes from this northern neighbor, and in the future we shall have to depend more and more on Canada in this respect.

On the south shore, Mr. Meade tells us, most of the asbestos of the world is produced. "What a funny mineral asbestos is," says Fred thoughtfully, when one of the sailors brings forward a specimen piece. "See, how it separates into silky fibres."

"I've heard it called 'mineral silk,'" speaks up Jack, "but I call it fire-insurance. I'm glad father put asbestos shingles on our house, and last fall he had our furnace and our heat-pipes covered with asbestos. That new theatre in

the city has an asbestos curtain, of course, and all its scenery is painted on asbestos cloth, too. Our car has asbestos brake-linings. Great stuff, asbestos!"

About four hundred miles away from the Saguenay we reach the mouth of the St. Lawrence, where it is nearly a hundred miles across; and here, like a gag in that mouth, as Fred says, lies the island of Anticosti, nearly half as large

From "Seeing Canada" by John T. Faris

Bringing hay by boat, Labrador Coast.

as Hawaii, but far from being so productive. A rich chocolate manufacturer of France chose to buy the entire island as a game preserve, for it was supposed to be nothing but rock and swamp. He found the pulp-wood on it so profitable that he settled many persons upon Anticosti.

Cabot's Land.—Shifting her course somewhat more to the north, the "Sprite" continues on her way, and before long we enter the strait of Belle Isle. On our right is the island of Newfoundland, and on our left begins the narrow strip of rocky coast called Labrador, which is the eastern side of the great peninsula between Hudson Bay and the

ALEX. G. BARRET
School Library
LOUISVILLE, KY.

Atlantic. As we sail, Mr. Meade tells us about the Labrador folk.

This "stern and rock-bound coast" is a treeless mass of rock. Here and there opens a narrow harbor, often so difficult or "ticklish" to enter that it is called a "tickle," and upon the harbor a little settlement clings to the rocks. Only a few thousand people make their homes in all these settlements combined. They are fishermen, and on fish their lives depend. Some of the Labrador folk, with great pains, have scraped together a little precious soil to fill tiny hollows in the rock, and there they have toy gardens where a few potatoes grow, but for many of the people fish, molasses, and flour furnish the chief food.

In summer thousands of Newfoundland fishermen come north to camp along the Labrador coast while catching and drying cod, but long before the winter storms begin, they all depart. Then the Labrador homes are left to icy loneliness, broken mainly by expeditions on the ice-fields to kill seals. Of course, the Labrador "liveyeres" are desperately poor, and they had almost no medical service, no good schools, no means of making life easier and happier, until Wilfred Grenfell, the English "missionary doctor," sailed his hospital ship from village to village.

"I help," was Doctor Grenfell's motto, and nobly he carried it out. Dangers of ice and tempest could not make him afraid. Store, hospital, school, orphanage, one after another, was founded. Partnership stores gave the "liveyeres" cheaper articles and better prices for their fish. Like a ministering angel, Dr. Grenfell, a real man in every way, passed along the coast and everywhere left a blessing. "He's what I call a true hero," cries Alice; "and he didn't have to kill any one to merit that name."

Now we go south along the rocky headlands of the Newfoundland coast, which resembles that of Labrador, only not quite so barren-looking. After many, many miles of such views we see on the top of a gray cliff a stone tower. "That's Cabot Tower," explains Mr. Meade. "I know," answers Ruth. "John Cabot was the Italian sailor who discovered the mainland of America for England, and so he called this region that he saw 'the new-found land.'"

"We're near Cape Spear now," Mr. Meade says, "and that's the 'farthest east' of North America. On that account Marconi conducted his experiments here when he received that first wireless message from beyond the ocean, and the aviators who first flew across the Atlantic started from this place. But Cabot Tower tells us that we're near St. John's, the capital of Newfoundland, and that's where we're going."

"Is Newfoundland as big as the other Canadian provinces?" asks Ruth, while the "Sprite" passes through the "Narrows" leading into the St. John's harbor. "Oh, you mustn't say that!" bursts out Jack. "The people will mob you! Don't you know that Newfoundland is the poor but proud cousin of Canada? She is a separate dominion, if you please, with a governor of her own, and even owns Labrador! She wouldn't join Canada for anything."

"That's independence for you," says Fred, thinking deeply, "but isn't it always hard to know whether independence or union is best?"

It does not take us long to see the sights of St. John's, for the town has just one chief business street, extending for a mile or so back of the wharves; so we devote ourselves to finding out as much as we can about Newfoundland itself.

The island is larger than Pennsylvania, but has less than half as many people as Pittsburgh. This small population

lives mostly in the neighborhood of St. John's, along the southeast shore. There is a more even climate than Quebec or Montreal experiences, for the water tempers the weather, but it is raw, chilly, and foggy in winter, and the streets

Courtesy Philadelphia Public Ledger

Codfish on the "flakes". During the drying season the beaches look as though white canvas had been spread over them.

of St. John's are usually covered with snow from December to April. The summer climate for the same reason is never very hot, and farming is limited.

Newfoundland has thousands and thousands of ponds and lakes, so many that nobody has ever counted them, and through the wild barrens around the lakes roam large herds of caribou. About half the island, however, is covered with

forest, and a number of English newspapers are printed on the material which comes from Newfoundland trees.

Back of St. John's peninsula is Conception Bay, and we go there to look over its waters at Bell Island. Here are rich iron mines, and, following the veins of ore, the miners dug until they were under the bay itself; now they have pushed on until their galleries lie for two miles beneath the water. Fred says, however, that he prefers to fish on the water rather than to dig under it.

Mr. Codfish.—In fact, there are twenty fishermen in Newfoundland to one farmer. Some of the Newfoundlanders sail in summer, as we have learned, to Labrador, some fish on the Grand Banks, southeast of Newfoundland, where the water is shallow, and many just fish along-shore from small boats, or set trap-nets. The greatest export of Newfoundland is codfish. Nine-tenths of the Newfoundlanders make their living in one way or another from the cod. When they speak of "fish" they mean cod. "Are there any fish in this river?" asked a stranger. "No, but there are plenty of trout and salmon," replied the Newfoundland man.

Beyond the town, along the rocky shore, we see plenty of cod, cleaned, split, flattened, and salted, drying on platforms called "flakes," built of spruce poles. The cod is a good-sized fish weighing on the average eight or ten pounds, and it may take a month to dry. As evening comes on, a troop of rosy-cheeked, freckled boys and girls run to the "flakes," pile the fish in a heap, and cover them with canvas until the next day's sunshine appears.

After the sun has taken away from Mr. Codfish as much moisture as possible and the salt has worked well into his flesh, he is about as tender and juicy as an oak board. In such a condition Mr. Cod is called "stock-fish," because he will keep in stock for a long time without spoiling, even

in a tropical climate. The people of the West Indies and Brazil eat a great deal of this dried codfish, while Italy, Spain, and Portugal are also good customers for the Newfoundland product. For this reason, the codfish is sometimes called "the bread of the sea."

QUESTIONS AND SUGGESTIONS

1. Find two estuaries in the United States.
2. Why are the Labrador people called "liveyeres"?
3. In "Billy Topsail," by Norman Duncan, find out what became of Teddy Brick and Billy when they were marooned with their famished dogs on the drifting ice.
4. What were the Germans doing at Black Bear Head? "The Ragged Inlet Guards," by Dillon Wallace, will tell you.
5. Cabot Grant had a peculiar experience with Newfoundland lobster-canners and was wrecked on the coast of Labrador. Read about it in "Under the Great Bear," by Kirk Munroe.
6. On the Labrador Peninsula Jean Marcel, of Great Whale River, saved young Kovik the Eskimo and was doubly repaid. "The Whelps of the Wolf," by George Marsh, tells the story.

CHAPTER XIII

THE MARITIME PROVINCES

Prince Edward.—"Good-bye, codfish land," cries Jack, as we sail out of the harbor of St. John's. "We're bound for—where are we bound, anyway?"

"For the Mar'itime Provinces," answers Mr. Meade.

"But what are those things?" cries Jack again, jokingly.

"Well, they're the smallest three provinces of Canada. They lie together in a bunch, and they're called the Maritime Provinces because they all have a lot of sea-coast. One is an island, one is an island and a peninsula adjoining, and the third fronts on a big bay. Let's go to the smallest first."

A night's sail brings us to Prince Edward Island, near the shore of the Gulf of St. Lawrence. It is a fertile region, like a big garden, somewhat smaller than Delaware, and, like Delaware, it has three counties, which the loyal Prince Edward inhabitants have called Prince, Queens, and Kings. "You're very loyal and royal here," remarks Ruth. "Do you pay reverence to King Codfish, too?"

"Not nearly so much as in Newfoundland," replies the Prince Edward boy who is showing us about. "We're mostly farmers here, for we have a fair amount of mild sunny weather. Our poultry and our dairy cattle bring us in good returns and we're famous for growing seed potatoes; but, somehow, our young people drift away to other regions where the life isn't so quiet, so that Prince Edward's population is growing smaller. I like it here, though. But you must come over and see our fur farm."

Raising Fur.—"Ha, ha!" laughs Jack, bending almost

double. "Oh, dear! I've seen pussy-willows grow, but I never saw fur being planted."

"Well, you just follow me, and you'll see fur growing, all right," says our friend Wilfred.

After Wilfred we all hurry, until he stops at a series of

Reproduced by permission of the Philadelphia Museum

Foxes at a fur farm. Undoubtedly much of the fur which we shall use in the future will be taken from animals raised in captivity, distinct from domestic animals.

wire pens where graceful animals are wandering or jumping about. "Look at their bushy tails, Ruth!" exclaims Alice. "I believe they're foxes."

"That's right," Wilfred says, "and these are the best kind, too. They're the silver black, and that's best because it can't be imitated. A specially fine pelt will sell for two or three thousand dollars—not so bad, I think. We also sell

the animals themselves to people who wish to start other farms, for Prince Edward is so great for fur-farming that many other regions are trying to imitate us."

"We have blue-fox farms on our own Aleutian Islands," speaks up Fred, who does not like to see his own land beaten.

"Room for a lot more," says Wilfred cheerfully; "and now, Mr. Jack, I suppose you'll go to raising your dear pussy-willows." So the last laugh is on Jack.

A Fisherman's Name.—Taking a sweep back on our tracks, we come to Cape Breton Island, which has so many gulfs, bays, and inlets that no part of it is more than thirty miles from the ocean. This very irregular island is larger than Prince Edward Island, but has not nearly so many people. "I found a book in the cabin," says Fred, "that told me how this name came to be. As soon as Jacques Cartier showed the world how to get into the Gulf of St. Lawrence, a swarm of French fishermen followed his course. Most of them were from the province of Brittany, in the northwest of France, and were known as Bretons. Some sailor named a cape of this island Cape Breton, so the whole island took its title from that."

The "Sprite" sails into Sydney Harbor, and there on the shore Jack's sharp eyes detect a row of blast-furnaces. "That means iron and coal," says he. We find that the Newfoundland mines are supplying the iron-ore, but that around Sydney lie enormous fields of coal. These are the only coal fields of North America that are directly on the Atlantic coast. Many steamers call at Sydney for their coal supply. The great iron-works here make steel rails that have been laid over many miles of Canadian land. Thousands of fishermen have left their nets and come to work around the roaring furnaces.

"Wouldn't you like to sail across the island?" asks

Mr. Meade. "What, on dry land?" thinks Ruth, but fortunately she does not say it aloud; for soon we enter a "gulf, bay, or sea" which almost cuts Cape Breton Island into two parts. This inlet is known as the lakes of the Bras d'Or, or Golden Arm. For fifty miles we follow this inland sea, which is sometimes narrow and sometimes broad, until at the end a canal only half a mile long carries us on into the ocean again. Mr. Meade smiles in triumph.

Only the Strait of Canso, a mile at its narrowest, separates Cape Breton Island from the mainland, and Alice, looking at the map, figures out that both islands, Cape Breton and Prince Edward, were formed by the sinking of the land. But while Prince Edward is a separate province, Cape Breton is a part of the province of Nova Scotia.

Halifax.—As we continue westward along the coast of Nova Scotia the city of Halifax appears on its peninsula, like Vancouver, with a fine harbor on one side and the Northwest Arm, a great boating sheet of water, on the other. This harbor is never frozen, so that while Jack Frost closes up the ports of Montreal and Quebec, Halifax is going on with her ocean commerce. The only trouble is that Halifax is far from the parts of Canada that are most thickly settled, and to this day she remains a city of no great size.

Though the English captured Nova Scotia from the French in 1713, the people remained mostly French, and there was constant danger that the French would get back this region. French ships used this harbor and came out merrily to make raids on the ships of the English colonies. The merchants complained; so, about fifteen years before our Revolution began, Halifax was founded, and was named after an English nobleman.

Halifax, until lately, was a naval and a garrison city for English ships and soldiers. We look up on the hill near the

From "Seeing Canada," by John T. Faris

Bear River, Nova Scotia.

harbor and see the citadel standing there, like that of Quebec; but now Canadian soldiers garrison the citadel and there is not much of a Canadian navy to occupy the harbor. From Halifax, however, many thousand Canadian soldiers sailed to help the mother-country in the World War.

Now that the cruel war is over, Halifax is developing her commerce and her manufacturing. She is hundreds of miles nearer Europe than is New York. Many vessels from South America and the West Indies bring their cargoes here, so Halifax has a sugar-refinery and chocolate factories, and would like to export a lot of Canadian wheat. Mr. Codfish is almost as popular here as in Newfoundland, and Ruth's nose wrinkles up as she sniffs the very fishy odors near the water-front. The fast Halifax fishing-schooners have races every year with the craft of the New England fishermen.

Evangeline Land.—At Halifax we part with kind Mr. Meade, and say good-bye to the "Sprite." Then we bid farewell also to cool, foggy Halifax, and take the train north past a few farms and a great deal of forest until we come to the little station of Grand Pré (Pray), which Alice, who knows French, translates as Great Meadow. "Does that name remind you of a poem, Ruth?" asks Jack. "Yes—wait a minute," answers Ruth. "I have it—'Evangeline.' Is this Evangeline land?"

Sure enough, here are the meadows and the willows and the apple-trees, just as Longfellow's Evangeline saw them nearly two hundred years ago. Here the French peasants, called Acadians, built their dikes, made pasture-fields out of the marshes, and lived in simple comfort, just as Longfellow described them, only, as Fred says, there wasn't any "primeval forest" on the marshes. But the Acadians, although they had come under English government, continued to favor the French, so the English shipped most of

them away to other lands. To-day not even one Acadian cottage remains, but an old well reminds us of the once happy village.

Tides of Fundy.—The Grand Pré dikes were made to shut out from the meadows the tides of the Bay of Fundy,

From "Seeing Canada," by John T. Faris

Evangeline's Well, Nova Scotia.

that great bay which partly separates Nova Scotia from New Brunswick. This long body of water forks at its head into two arms, the southern one being called the basin of Minas, and it is that basin which touches Evangeline Land. We walk over to the dikes and stand on the shore of the basin; but what a surprise! Before us stretches an expanse of red mud, with a few boats stranded upon it. "Where's all the water?" inquires Jack.

Miles away a silver gleam and some silver sails show

where the water can be found. Next day, at a different hour, we return. There are the boats floating on the beautiful mirror of the sea. "Magic!" says Jack, surprised. Yes, the magic of the tide.

The Bay of Fundy tides are famous all over the world, for here a great amount of water rushes into an inlet which grows narrower and shallower, so that the water piles up and up. In certain places and at certain times it comes in faster than a horse can trot, in a roaring wave, until high-water mark is forty or fifty feet above low-water mark. "A fellow has to keep calculating here," remarks Fred, "if he wants to keep on the right side of the tide, I tell you."

Apples of Annapolis.—A long mountain ridge borders the south side of the main Bay of Fundy. It protects the valley beyond it from the Fundy fogs and the cold north winds. A good place for orchards is this sheltered Annapolis Valley, and we are just in time to see its million apple-trees in pink fragrant blossom. Later in the year, shipload after shipload of its apples will go to the British Isles.

From orchard to orchard we pass along the valley, and at the end, where the Annapolis River falls into the Bay, we reach Annapolis Royal. "Is this place named from our Annapolis, where we saw the 'middies' at the Naval Academy?" says Ruth.

"No, but both places were named for the same English queen," answers our soldierly-looking guide.

"Tell us about it," says Alice, interested at once. "I see a fort and a monument that must mean something."

"Well," begins the guide, "this is the oldest settlement in Canada. It isn't so old by about forty years as your St. Augustine, but it's pretty old at that, for the first Frenchmen landed here in 1604. Your friend, Champlain, lived here awhile before he founded Quebec, and the settlement was

called Port Royal then. After about a hundred years, the English took it and called it Annapolis for 'Good Queen Anne.'"

"I like to learn my history this way," laughs Jack. "Then I don't forget it."

"Annapolis Royal, although a small place," explains the guide, "has a good harbor, and ships come here to load up with apples and lumber."

Not far from Annapolis Royal is the town of Digby, where we take a steamer across the Bay of Fundy. Tide is low, so we have to go aboard the steamer by the "basement door," as Jack calls it—a dark, damp inclined passage through the wharf which leads down to the gang-plank. "If the tide were only high, we could step right on the gangway from the top of the wharf," complains Fred. "Oh, come on!" cries Ruth. "This is a new experience, and it'll make us remember the Fundy tides."

The Loyalist City.—The steamer brings us to St. John, and we find that we are in the capital of New Brunswick. St. John, like Halifax, is a great winter port, and has big docks for handling lumber and grain. "My guide-book says," observes Alice, "that St. John was only a trading-post for many years, until, just before the Revolution, some of King George's party left Massachusetts and made their homes here. But the settlement didn't become a city until, when England made peace with us in 1783, and her troops left New York, ten thousand 'loyalists' left the United States, too, and built up St. John."

"No wonder," cries Jack, "that St. John's chief squares are called King and Queen. Oh, here's Champlain again," he continues, as we reach Queen Square, "and he's pointing to the harbor that he discovered."

We cannot leave St. John without visiting the Reversing

Falls. In the St. John River, which flows through the city, we see some rapids dashing over rocks toward the sea. As we watch, the Fundy tide comes up and up in the river, until there is no rapid left. Still the level rises, and so rapidly does the channel fill that presently there is an actual rapid dashing the other way.

New Brunswick.—While we look, spell-bound, at the curious sight which the Falls afford, a man standing by tells us about New Brunswick. "This is Maine's next-door neighbor," he says. "It's almost as large as Maine, and it has much more wilderness. If you ever get tired of the Maine woods, come over into the New Brunswick forest.

"Our woods not only give you camping, canoeing, and hunting, but they are furnishing you with paper, too. You people in the United States are such newspaper readers, and your newspapers are so big! Why, my word! one Sunday edition of one New York paper alone takes hundreds of tons of paper, all the wood that grows on seventy-five acres of ground. Lucky for you that we Canadians have plenty of wood yet, for you're cutting your wood five times as fast as it can grow."

"Thank you," answers Fred politely. "Canada and the United States are both better off for being good neighbors, I'm sure."

"Come on now," calls Jack, "our steamer is waiting to take us back to Portland. Good-bye, Canada. Let's sing Canada's song, 'The Maple Leaf,' as we go."

QUESTIONS AND SUGGESTIONS

1. Write a list of words that have the same root as "maritime."
2. Would you prefer fur-farming to trapping? Why?
3. What coal-field of the United States is nearest to the coast? Use a coal-map to tell.
4. What lines of "Evangeline" describe the village of Grand Pré?
5. Where else in Canada is a great apple region?

CHAPTER XIV

CORAL ISLANDS

A Speck in the Sea.—We have grown weary of winter and are preparing to visit southern lands. One day in early spring there comes a letter from Mr. Meade. "Are you tired of the 'Sprite'? If not, wait for me; I'm going south, too."

So it happens that we stand again on the "Sprite's" deck and see Sandy Hook fade into the distance. Day after day the vessel heads southeast, away from the shore, until one smiling morning the "Sprite" slips between the coral reefs into Hamilton harbor. "Where are we?" queries Ruth. "At the Bermuda Islands, six hundred miles from land," Mr. Meade answers.

"Are there many of the islands?" pursues Ruth. "Yes, there are a great many, but only a few matter. All of them together make just a little spot in the ocean, with twenty thousand people or so. I suppose the tiny coral animals built them up on the submerged top of some old volcano."

"I see the English Union Jack," says Alice. "These islands must be a part of the British Empire, then."

"They are," comes the answer. "Bermuda is a British naval station and a garrison is always kept here. However, thousands of visitors from the United States come to Bermuda each year."

Tropics of the North.—"What brings the tourists to Bermuda?" cries Fred. "For one thing," replies Mr. Meade, "the fine climate. Bermuda lies opposite the coast of Georgia; but whereas Georgia has snow occasionally and frost on a number of days each winter, Bermuda sees neither

frost nor snow. Roses bloom in the gardens throughout the year. The warm water of the Gulf Stream, flowing forever out of the Gulf of Mexico through the Florida Strait, keeps Jack Frost away. In summer the winds are cool even though

Courtesy United American Lines

Quaint houses in a quiet street, Bermuda. Notice the white walls and the white road. The cedar trees are a noticeable feature of Bermuda.

the sun is hot. Now come for a drive ashore and we'll see some other attractions."

So we all take a carriage, as no automobiles are permitted on these little ocean-isles, and we follow a smooth white road. It leads us past so many villages and villas that we can see the place is thickly settled, though no smoky factories defile the clear air. On the side of the sea, however, there is

room enough, and we stop to see caverns filled with stalactites and holding underground pools swarming with fish. Every tint and shade of blue strikes our eye from the ocean according to the depth of the azure water over the white sand. Along the dazzling white road gleam white houses, made

Courtesy United American Lines

A street scene in St. George, Bermuda. Here no frost need be feared. Why ?

from the soft coral rock of Bermuda, but their whiteness is relieved by tall hedges of pink oleanders, by pink feathery tamarisks, or by the green of temperate cedar-tree, semi-tropical fig-tree, or tropical rubber-tree.

"Look at that beautiful field!" Jack exclaims as we ride along. The girls, too, exclaim with delight, for it is full of graceful white Easter lilies. "These are left-overs," says

Mr. Meade. "Most of the lilies they raise here have already gone as bulbs to the florists in the United States. You see the Bermuda lilies, but can you smell the Bermuda onions? There is a field of them now, and they bring in much more money than do the lilies. Beside the onions, Bermuda, on account of her climate, supplies our country with a great many early potatoes."

"Here are banana, orange, and lemon trees," remarks Ruth. "And there are palms and bamboos!" Alice exclaims. "Now I am sure you will remember," replies Mr. Meade, "that Bermuda is the farthest northern spot wherein many tropical plants grow naturally. But we must go back to the harbor, take a trip in glass-bottom boats to see the wonders of the 'sea-gardens' of the coral reefs; then the 'Sprite' will hoist anchor and be off again."

Sand, Salt, and Sunshine.—Southwest we go for hundreds of miles more, while the weather grows warmer and warmer, until a low island comes into sight. "Think of the one date that everybody knows," laughs Mr. Meade. "I know two," says Jack, "1492 and 1776." "Well, take the first date," returns Mr. Meade. "As far as we can tell, this is the land which Columbus first saw in the New World."

This British island, so interesting to Americans (though there is much dispute as to the exact spot of Columbus' discovery) is not very interesting in itself. There are many others like it, for it lies in the Bahama group, whose three thousand islands stretch south from opposite the Florida coast for about seven hundred miles. So barren are most of these sandy specks that they have no inhabitants, and only roving fishermen know them at all.

At the last and most barren of all the Bahamas we make a visit. No trees grow there, and, as in the Bermudas, the only fresh water is gained by catching rain. "But people

live here, I know," cries Fred. "They have mines here. I remember what a barren place Butte was with its copper mines."

No, there is not a mine, but there is mineral produced. These people of Turks Island gain their living from sea-water. By letting the water evaporate under the hot sun in shallower and shallower tanks, the salt finally crystallizes, and it is shoveled up, dried some more, crushed, and packed. Everything that the Turks Islanders wear and burn and eat and use in any way must be imported, but salt pays for all, and these people, out of the world as we think them, seem very contented.

Nassau.—Visitors to the Bahamas usually go to one island, New Providence, the largest of all, not very large at that, yet four times the size of all the Bermuda Islands put together. As we of course must follow the fashion, the "Sprite" dances over the waves until we arrive at New Providence, and see the city of Nassau sleeping in the sunshine, guarded by her old forts. Nassau is only one hundred fifty miles from Miami, and many fashionable people "take a run over" to pass delightful winter months in an English town which has modern conveniences, yet where time seems to be of little moment. "If I lived long in Nassau I'd be too lazy to leave," says energetic Jack, "so we'd better move on if Mr. Meade is ready."

But before the others go, they wish to see the sponge market. Here on tables are piled up those strange "animals" that look like vegetables. "It feels queer, when you are in bathing," remarks Mr. Meade, "to walk on one of these rubber-like things. The sponge 'fishery' here is very important, for we can't get along without sponges. You use a sponge for cleaning the body of your car, don't you? Many kinds of sponge, however, are so full of flinty needles that

they scratch everything if they are used, and only a few varieties are valuable. You would have to go to the Mediterranean Sea for the very best sponges. Now let's be off."

The Gulf Stream.—Not far from Nassau the "Sprite" meets such a strong current that she goes very slowly. "What's the idea?" says Fred, wonderingly. "This is the

Courtesy Nassau Development Board

Harbour Island in the Bahamas. Many of the Bahamas, however, have no inhabitants at all. What is the reason?

Florida Strait," answers the mate, "and we're now in the Gulf Stream, that flows out through it, between Florida and the Bahamas. Think of this big river, seventy-five to a hundred miles wide, carrying the warm water of the Gulf out to the Atlantic."

Alice looks thoughtfully at the blue water, where flying-fish are skimming and porpoises are playing. "Somebody told me that the western coast of Europe was much warmer

than our eastern coast, because of the Gulf Stream," she remarks. "It is warmer," says the mate, "but that's because of the westerly and southwesterly winds that blow from the ocean over the land. There isn't any Gulf Stream after you go a few hundred miles past the Bermudas, for it just splits up and is lost."

QUESTIONS AND SUGGESTIONS

1. Tell your class about the wreck of Sir George Somers on the Bermuda Islands.
2. If you governed Bermuda, would you permit the use of automobiles? Explain your answer.
3. How is salt usually obtained in the United States?
4. The natives of the Bahamas are nicknamed "conchs." Why?
5. In "The Sea Bird's Quest," by Alfred F. Loomis, you will learn how Jim, Phil, and Tom sailed to the Bahamas and found the wreck on San Domingo Cay.

CHAPTER XV

WHERE SPAIN AND AMERICA MEET

Entering Havana.—A day later our yacht slips through a narrow bay-entrance. On one side, a brown castle-fort crowns a rocky hill. On our right, behind another fort,

Courtesy United American Lines

Morro Castle. Of what fort in the United States does this remind you? The lighthouse on the castle was not part of the original fort.

stretches a great city, though we look in vain for the host of factory-chimneys which mark our American centres of business. The fort to the left is the "Morro," meaning headland or bluff; that to the right is the "Punta" or point. These are Spanish names; and look! on the Morro flies a flag with a lone star like that which Texas once possessed. It is the flag of the Cuban republic, and Cuba was once Spanish. Here we are at the famous city of Havana.

HAVANA
Scale of Miles
0 1/4 1/2 3/4 1
Morro Castle
La Punta
La Fuerza
GULF OF MEXICO
MALECON
PRADO
PARQUE CENTRAL
HAVANA HARBOR
GENERAL DRAFTING CO., INC., N.Y.

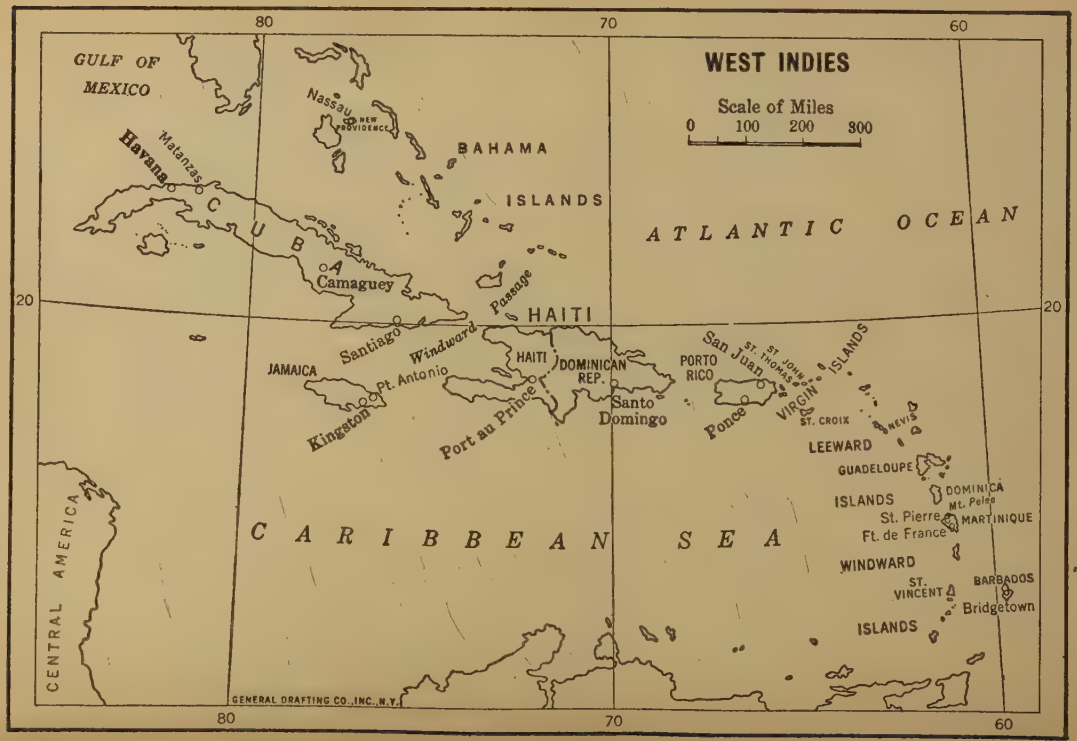
As we enter Havana it strikes us as a city of bustle, of noise, of uproar. Trolley-cars rattle, automobiles honk, peddlers shout. Fred calls a gayly painted Ford out of a swarm of such cars, and it rushes us to the Parque Central (Par'-kay Cen-trahl') or Central Park, the heart of the city. Here we stop for a few minutes to look at the park's palms

Courtesy United American Lines

Havana from Morro Castle. The characteristic flatness of a Spanish city is being broken by a number of tall modern buildings, for Havana is the great trade centre of the West Indies.

and beautiful flowers. Hotels, fine clubs, and theatres surround this great open space, and the main trolley-lines begin here.

The New and the Old.—Now we start gayly off again along a wide avenue, the Prado, with trees in the centre. At the far end of it, two miles away, appears the blue of the sea, and almost before we know it our skilful driver has passed through all the Prado's swarming traffic, has given us another view of Morro Castle, and has swung round into the Malecon, which is another fine sweep of driveway, bor-


WEST INDIES
Scale of Miles
0 100 200 300
GULF OF MEXICO
Nassau
NEW PROVIDENCE
BAHAMA ISLANDS
Havana
Matanzas
CUBA
Camaguey
ATLANTIC OCEAN
Passage
HAITI
Santiago
Windward
JAMAICA
Pt. Antonio
Kingston
HAITI
DOMINICAN REP.
Port au Prince
Santo Domingo
PORTO RICO
San Juan
Ponce
ST. THOMAS
ST. JOHN
VIRGIN ISLANDS
ST. CROIX
NEVIS
LEEWARD
GUADELOUPE
ISLANDS
DOMINICA
Mt. Pelee
St. Pierre
MARTINIQUE
Ft. de France
WINDWARD
ST. VINCENT
BARBADOS
Bridgetown
ISLANDS
CARIBBEAN SEA
CENTRAL AMERICA
GENERAL DRAFTING CO., INC., N.Y.
80
70
60
20

dering in this instance upon the Gulf. To our left stand the fine residences of wealthy Cubans, while to our right, below us, break the warm waves.

At an old Spanish watch-tower we turn back, and our driver takes us through the ancient part of Havana to see the fort of La Fuerza (Fwer'-tsa), which De Soto built the year he sailed off to Florida. In this stout fortress De Soto's wife, Isabella, watched and waited four years, sending out relief expeditions; but after that time, giving up hope, she passed away. "When I studied about De Soto," says Ruth, "it's strange I never thought about the girl he left behind him; but now I feel very sorry for her."

Mr. Meade's Lecture.—Dismissing our driver, we gather around Mr. Meade while he tells us about Havana. "All this noise and bustle," says he, "may inform you that Havana is a busy commercial city. In that respect it is very much like New Orleans; the two cities are nearly of the same size, and are among the great ports of the world. As Havana is the capital of Cuba and by far its largest city, the wealthy Cubans like to come to Havana to live, even if for only a part of the year. Of course they support a great many fine shops.

"You remember," continues Mr. Meade, "that in 1898 and 1899 Uncle Sam fought with Spain to set Cuba free, as we thought that Spain had not treated the Cubans justly. We did free Cuba, but we felt that we had to oversee affairs for a while after the war. Many people of other nations declared that Uncle Sam, 'the Giant of the North,' was going to keep Cuba for himself, but when we finally announced that Cuba was able to govern herself as a republic, the world looked on astonished at our unselfishness. We still stand ready to help Cuba if she ever needs our aid in any way.

Latin Ways.—"Although the Cubans did not like the Spanish rule, they could not help being Spanish in their language and their customs. If you girls and boys keep your eyes open as you go around Havana, you'll see many

Courtesy United American Lines
A street in Havana. What is different in the appearance of this street from that of the street on which your house stands?

things that may seem strange to you, but I want you to remember that such things are usually common to all Spanish-speaking countries. You will notice the features again and again in your farther travels, so it is well to get acquainted with Havana as a sample of other cities founded by Spaniards."

Accordingly, for several days the young people spend their time looking for what artists call "local color." They stroll up and down the smaller streets, they observe carefully the life which goes on about them, they see the people of Havana at work and at play. Fred and Jack even pick up a number of words in the stately and expressive Spanish language. Every morning Fred says to Jack, "Como está Usted, Señor?" (How are you?) and Jack replies, "Muy bien, gracias, Señor, y Usted tambien?" (Very well, thank you, sir, and you also?).

The Spanish Home.—Perhaps the first Spanish touch that the young people notice is the many narrow streets; but where the sun shines hot in summer this is an advantage, for narrow streets have more shade and so are cooler. Instead of having porches to invite the family and friends to sit outside, the typical Spanish house seems to shut itself off from the street. Its walls rise straight from the pavement, and if there are any windows in front on the ground floor, they are defended by iron gratings. However, we learn that such a home is like a man with cold manners but warm heart.

Inside the house is an open courtyard or "patio" (pah'-tea-o) surrounded by a covered space from which the various rooms of the house can be entered. There are always shrubs and flowering plants in the patio, often a splashing fountain, and the cages of pet birds hang there. Mother, father, and children gather there at leisure times as our families would gather about an open fire. Thus the life of the house is drawn toward this attractive interior, leaving the world outside. The Spanish-speaking families do not invite many people to their homes; they usually meet their friends somewhere else.

The front rooms of Cuban houses, as the girls and boys can see occasionally through a barred window, seem crowded

with showy furniture; but Mr. Meade tells us that the rooms which strangers cannot view are very bare. There are no

Courtesy Panama-Pacific S. S. Co.
The patio in a Spanish home of the poorer class. Several families share this patio. How would the patio of a well-to-do home differ from this?

pictures on the whitewashed walls, no rugs or carpets on the tiled floors; yet this bareness makes a cleaner, cooler home

in the tropics, beside saving housework. Coolness is also gained by the heavy walls and the high ceilings.

Evening Gayety.—During the heat of the afternoon almost every one takes a " siesta " or rest. As evening draws near the city awakes, the sidewalks are thronged and the shops have a busy time. In the cafés, wide open to the street, sit groups of men discussing the news of the day, for each man in Havana has his favorite café where he meets his friends.

The evening meal is late, and after that is disposed of Havana really begins to enjoy herself. Theatres open, movies, called " cines " (see'-nays) are thronged, and the cafés cannot find enough tables in room or on sidewalk to accommodate their would-be visitors. Every man is out on the street, but most of the women are at home with the children, for in these " Latin " countries the man of the better class leads a much freer life than he permits his wife and daughters to have.

QUESTIONS AND SUGGESTIONS

1. What became of Hernando de Soto?
2. Find out what was happening in Cuba just before the Spanish-American War.
3. Make a list of Spanish words.
4. How does a climate that is warm throughout the year make the customs of the people differ from those of more northern lands?
5. " In Morgan's Wake," by A. Hyatt Verrill, tells of the sights Paul and Harry viewed in Havana and Matanzas.

CHAPTER XVI

A VAST SUGAR-BOWL

The Cuban Alligator.—"Isn't it time to see the rest of Cuba?" asks Alice. "Yes, I want to," says Ruth. "Is it much of an island?"

"Just about as big as New York State," replies Mr. Meade, "but what a different shape!"

Thoughtful Fred pulls a map from his pocket. "I'd say it was like an alligator," he remarks.

"Well, being so long and narrow," says our friend, "if the nose of your alligator were at Chicago, its tail would be at New York. I'd call that a long distance."

Smoker's Land.—First we visit the alligator's head, that small part of Cuba which lies west of Havana. This is the tobacco section, and the sprawling plants stretch away over gently rolling hills, field after field. Months ago the tiny tobacco seeds were sown thickly in rich seed-beds, where they sprouted up like grass; then the small plants were uprooted and set out again in the regular fields. As the plants grew to some size, the workmen spread over some of the fields acres and acres of white, thin cheesecloth, supported by poles, and under this covering the tobacco leaves become fine, thin, and strong, not coarse and thick, as they would probably have been in the open. The great white patches of cheesecloth look like sheets of snow in the landscape.

Tobacco grown under the cheesecloth is of course the most expensive kind, and it is used for the wrappers of fine cigars, while the inner part of the cigars is made from tobacco which is good, but which is coarser because it is

grown in the open. There are cigars made in almost every large town of Cuba, but Havana's cigar-factories are the greatest. Though the city's cigars are sold mostly in Europe, because Uncle Sam has put a considerable tax on them, the cigars that American smokers do get from Cuba all come through Havana. When any man in the United States says

Reproduced by permission of the Philadelphia Commercial Museum

A tobacco field in Cuba, inclosed by cheesecloth. The inclosure is high enough for a man to walk beneath it easily. What is the benefit of the cheesecloth inclosure?

to another, "Here's a fine Havana," his friend knows that these words mean a cigar.

Here and there in the fields we see gangs of workmen bending over the plants, for it is time to cut the tobacco. The leaves will be hung over poles and dried in big airy barns. Tobacco means a great deal to Cuba, yet the millions of dollars it brings to the island seem small beside the vast sum that comes from the real business of Cuba—the sugar industry.

Out to the Sugar Estate.—Cuba is the greatest sugar country of the world, and fortunately she lies at the door

of the greatest sugar-eating country of the world. Every one in the United States is born with a very, very sweet

Courtesy Nassau Development Board

A youngster showing Jack how to enjoy a stalk of sugar-cane. A bundle of canes is stacked at the left.

tooth, and by far the largest amount of the sugar that we use comes from our neighbor, Cuba. On sugar depends the prosperity of that island.

"I'd like to see a big sugar estate," says Jack. "Let's go." So we take a train eastward from Havana to Matanzas, where we call upon our friendly American consul. The consul uses his telephone, and in a few minutes says, smiling, "Señor Carde'nas will be glad to show you his estate. He lives about twenty miles inland, but all his sugar is shipped through this port."

"Oh, thank you, Mr. Consul!" exclaim Jack and Fred together. "Now where can we hire a car?"

Soon we speed across a plain where the green of the cane-fields meets the blue of the sky on every side. Only a few scattered palms break the sameness of the view. High above our heads rises the waving cane. After a while we reach a collection of houses which looks like a small town, but it is only the spot where live the planter and his employees. Everything seems to centre about the big factory whose tall chimneys send forth their smoky flags.

Guided by Alfonso.—Señor Cardenas receives us cordially, and says, "If you will pardon me, I will allow my son, Alfonso, to show you everything you would like to see. Alfonso has been at school in the United States, and speaks English well."

"That's fine," we all say, as Alfonso, slender and handsome in his white suit, takes off his Panama and bows gracefully; and away we ride through the cane-fields. "Do you notice," says Alfonso, "that the cane is of various ages in various fields? It is planted thus to have it ripen at different times, so that there will be a constant crop during six, seven, eight months for our mills to grind, beginning just after your Thanksgiving Day. See our cutters here swinging their machetes (mah-chay'-tays), their cutlass-like cane-knives, and others carrying the big stalks to the ox-carts. It's a man's job, I can tell you."

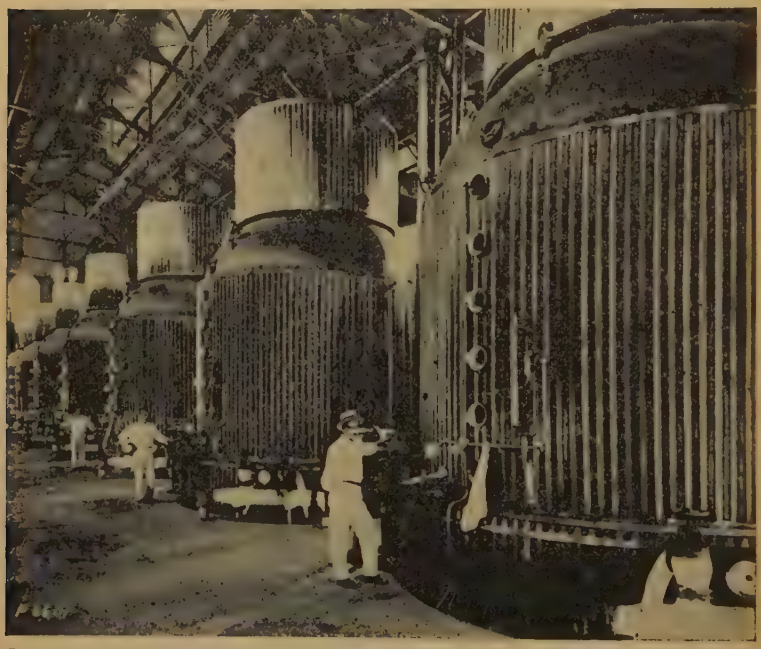
"But why do you use those slow oxen? I thought this was a modern plant," remarks Ruth, a little rudely, perhaps. "That's for economy," replies Alfonso. "We use these oxen just to haul the cane from the field to a railroad-station near by, from which a train carries it to the mill. That is cheaper than laying tracks everywhere, and oxen are cheap beasts to feed, because they live on grass. When the dry season spoils the grass, cane-leaves take the place of pasture-feed. So we sugar-planters of Cuba keep many oxen on our estates.

In the Sugar-Mill.—"Now let us go to the mill," says Alfonso, and before long we arrive. On belts the cane is carried to sets of rollers which crush out the juice. Each new set presses harder than the one before it, until at last the crushed cane is so dry that it is burned to make steam for running the mill. The juice is then treated with whitewash, and the lime of the whitewash purifies it; then the cleared juice is filtered, and boiled in big evaporators so that it loses much of its water. Next this thick syrup goes into the vacuum pans, where it boils until some of it crystallizes into grains of sugar. After this the sugar-grains and the molasses-syrup are put into cylinders that act somewhat like cream separators; they revolve so fast that the molasses is thrown out and the sugar is left.

"We do this boiling and crystallizing and separating again and again," Alfonso tells us, "until we can get no more sugar out of the molasses. You would be surprised to see how little molasses is left. Now here is the sugar in bags. Try to lift one." "I can't move it," says Fred. "Our porters do," smiles Alfonso, "but look inside a bag, at least." "Why the sugar is rather moist and yellow!" exclaims Alice. "It doesn't look good to me."

"Yes, it must take a voyage," Alfonso answers. "It

must go to the United States, where some refining will make it into the white grains that you like. Some day we shall do that here and gather in the profit that your country now takes. But we are doing well anyhow. As long as you



Reproduced by permission of the Philadelphia Commercial Museum

The great vacuum tanks in which the cane-juice is heated. The juice goes from one tank to another, each tank containing thinner and thinner air, so that the juice boils more easily as it goes down the line of tanks and thus loses its water more quickly.

Americans eat so much candy and cake and ice-cream and put two spoonfuls of sugar in a cup of coffee, Cuba need not worry. And if we do not send enough sugar, just tell us. Although half of our cultivated land is now in sugar-cane, we have plenty more land that we have not touched as yet. So, long live sugar!"

Along Cuba's Backbone.—Having thanked Alfonso for his courtesy, we return to Matanzas and start off by train for a ride through the length of Cuba. After many hours, for the ride is long and our train does not travel fast, we reach the city of Camaguey (Cam-ah-gway'), the second largest of Cuba, and the only large city of its interior. "How does it happen to be in the interior?" asks Ruth.

"I can tell you," says an American planter who is sitting opposite. "This is a town that moved itself. Like all the other cities of Cuba, it was on a harbor, and it was called Puerto Prin'cipe, or Prince's Port; but almost as soon as it had been founded the pirates plundered it, so the citizens decided they would move inland to this situation, and they gave the town the name it now bears. Still, moving did not save the town, for in 1665 Morgan, the pirate, marched overland and laid it waste. Camaguey's streets to-day are very narrow and meet at all angles; some people say it was because the people rebuilt the city in such a hurry; but jokers remark that it was to bewilder the pirates if they ever came back. To-day Camaguey is rich by its surrounding cattle-ranches, sugar-plantations, great forests, and fruit-farms."

On we go past long stretches of forest, while at the little stations stand piles of immense logs, mahogany and so-called cedar. The aromatic "cedar" will be used in boxes to hold the famous Havanas, while the mahogany will make many a fine piece of furniture. Here and there choppers are cutting down the mighty trees, whose place will be taken by sugar-cane. At last below us we see the end of our journey, the city of Santiago.

Santiago and Its History.—"Hot, hilly, and fascinating" is old Santiago, named after St. James, the patron saint of old Spain. The eastern part of Cuba is both the wildest and the highest, for here the mountains rise much higher than

any we can find in the United States east of the Rockies. Santiago stands on one of those narrow-necked, bottle-shaped harbors in which Cuba is so very rich, and, being walled about by mountains, it naturally is both hilly and hot. It is fascinating, too, because here the old Spanish style of building has been kept, and a marvelous jumble of colors can be found, the brighter the better, think the house-painters. Eastward of the city are large open iron mines, where hills of ore are being cut away, and most of the ore comes to the United States.

Around Santiago took place the most striking events of our Spanish-American War. In its harbor, defended by a Morro Castle like that of Havana, Admiral Cervéra's Spanish fleet took refuge, and a Spanish army held the town. But Roosevelt and his men stormed San Juan Hill, where now we see a Roosevelt monument, and our troops captured position after position until the Spanish general saw that the game was up.

Brave Lieutenant Hobson had already tried to block the harbor by taking in a vessel and sinking her in the narrow entrance, but, though he did his best, the passage was not blocked. Admiral Cervera's fleet made a sudden rush to escape, but the American ships were waiting, and their guns were ready too. One by one the Spanish cruisers, burning and sinking, turned toward shore to save the lives of their men. Cuba was ours, and under the big "peace-tree" near San Juan Hill the terms of surrender were arranged.

Now Cuba is a republic, small to be sure, but, in general, prosperous. Her flag of the Lone Star is under the protection of Uncle Sam, and is a reminder to all the Spanish-speaking peoples of America that Uncle Sam wishes to act justly rather than to gain new territory.

QUESTIONS AND SUGGESTIONS

1. Where in the United States is tobacco grown under cheesecloth?
2. Do Americans eat too much sugar? Explain your answer.
3. Tell the story of Morgan the pirate.
4. Tell the story of Roosevelt's experiences with his Rough Riders in Cuba.
5. How did Lieutenant Hobson fare after sinking his vessel in the channel?
6. In "Seckatary Hawkins in Cuba," by Robert F. Schulkers, you will find the story of a treasure-hunt by a cheerful fat boy and his friends.

CHAPTER XVII

NEW SIGHTS IN JAMAICA

Kingston.—"Where are we going now?" asks Ruth. Not far. At Santiago de Cuba we take a little steamer that runs once in awhile, and after a short voyage south we near the southeast shore of Jamaica. "This is an English island," says the captain of our vessel, "and a most interesting place you'll find it to be."

"I suppose it's very big, then," observes Alice. "No," answers the captain, "Jamaica is only one-tenth as big as Cuba, or somewhat smaller than your state of Connecticut; but you will notice many new things there. First of all, Jamaica is associated with your own United States history, for when your William Penn was a little fellow eleven years old, his father, Admiral Penn, in company with another admiral, captured Jamaica from the Spaniards, and England has held it ever since. If Admiral Penn hadn't been successful, William might not have been rich enough to establish Pennsylvania.

"Now," continues our talkative captain, "look at this long strip of sand, called the Palisadoes, and see the large bay behind it. On the end of that sand-bar once stood what I suppose was the wickedest town in the world, for it was the town of Port Royal, where pirates held sway. What wild carouses they once held there! At last, however, the earth shook, and Port Royal, with most of its houses, most of its people, and all of its vast treasure, sank beneath the waters. Some of its coral-covered ruins may still be seen, the boatmen say. The few survivors went across the bay to the

mainland and founded Kingston, which in its turn was leveled by an earthquake more than two centuries later, but which, unlike Port Royal, was rebuilt."

Most of the inhabitants of Kingston, the capital of Jamaica, are negroes, as, indeed, are most of the people of

Courtesy United American Lines

A roadside cabin in Jamaica. Why do so many of the people dress in white? Note the banana trees arching at the entrance.

the whole island, for there is only one white person to fifty or sixty black. Slavery, however, was abolished in Jamaica many years before it was stopped in the United States. There are about as many Hindus from India as there are whites; these Hindus we can tell by their features, much like those of the whites, but they have dark complexions. Though

the finer stores are English, a number of the small shops in city and country are kept by Chinese.

Edward Explains.—With Edward, a bright English boy, as our guide, we ride over the many fine roads that follow the river-valleys through the hills and mountains. Jamaica is mountainous, as are most of the West India islands, and her Blue Mountains are famous for their waterfalls. No wonder that the Indians called their island Xaymaca, the land of springs and streams. We love to feel the fresh trade-wind, which the Jamaicans call the "doctor," while when the hot land-breeze blows we appreciate its common name of "undertaker."

"Can you show us some new things, Edward?" asks Jack. "That I can," answers Edward decidedly. "My father's a gardener, you know, and I'll show you some new plants, at least. There's one now!"

Out of the car jumps Edward, with Jack after him, though Jack has no idea why he does so. They come back with handfuls of a reddish berry with a prickly pod, which they have picked from a spreading bush. "This is annotto, or arnotto, or annatto, spell it any way you choose," Edward says. "You've eaten it, Mr. Fred, how did you like it?"

"I never ate it in my life; why, I never even heard of it," declares Fred, annoyed.

"Oh, yes, you've eaten it," Edward persists. "When these berries are boiled, they give an oily extract that makes a fine red or yellow color according to the strength you use. Sometimes they dye cloth with it, but I was thinking that most of the American butter and cheese which is bright yellow owes its rich color to annotto. Do I score?"

"Yes, you do, Edward; that's one point for you," cry both the boys.

Spice and Ginger.—Having passed a group of negro school children so used to carrying burdens on their heads that they are transporting their books in that way, Edward stops the car again. A fragrant, spicy smell greets us. Under a clump of trees with grayish bark are a number of women picking up branches which boys are tossing down from above. The branches are loaded with clusters of blackish berries the size of small peas. "Now did you ever eat these?" demands Edward.

"I don't know, I'm sure," says Ruth. "You can easily fool me." "No fooling about it," Edward responds, "these are allspice berries, and I know your mother likes to use them."

"Why are they called allspice?" is Alice's natural question.

"Because when they're picked like these, before they're quite ripe, and then dried, they are supposed to taste like a mixture of cloves, cinnamon, and nutmeg. I beg leave to observe that Jamaica leads the world in growing allspice, sometimes called pimento. Point two for me."

"I say Jamaica," exclaims Edward again after a little. "What do you say?"

"Ginger!" shouts Jack, who gets ideas quickly.

"Right you are," comes the answer, "and there's a ginger-patch." We all look, and discover a field of plants three or four feet high, with hollow stems like reeds. "The harvest is all gathered now," says Edward, "but perhaps I could find you a little ginger. Would you prefer the leaves, the stems, or the berries?"

"No, you don't fool us this time, old chap," laughs Fred. "I've eaten ginger too many times. I'll take the root, if you please."

"Well, don't take the whole root," Edward answers, "for we must leave a piece of it to grow next year. Again I must say that no ginger in the world can beat Jamaica ginger."

A Heap of Wood.—We come to a Hindu village and stop

Reproduced by permission of the Philadelphia Commercial Museum

Weighing logwood The heartwood has a faint smell somewhat like violets In what other countries is logwood found?

for awhile to let the girls buy a handsome silver bracelet or two. Some of the gentle, dark-skinned women are wearing their jewelry as nose-rings. "I don't think that will ever be fashionable in the United States," says Ruth. Near the village Alice spies a pile of crooked logs and stumps. "Oh,

what queer-looking wood!" she cries. "It's such a dark red. That can't be red cedar, can it?"

"No, no," says Edward, "the red of red cedar is a very small portion at the heart. This is another of our Jamaica oddities that you don't have. It's logwood."

"Some of it is stump-wood," adds Jack, with a hearty laugh.

"In old days people didn't use the stumps," Edward continues, "so it was all called logwood, or, from its color, bloodwood. The trees grow scattered all over Jamaica, and are always crooked, as you see. There is yellowish sapwood on the outside, but that is no good, so it is cut off, leaving this red heartwood. A great deal is sent out as timber, but we have some mills that grind up the wood with hot water and make an extract, which is barreled and shipped. Logwood makes a fine dye, either brown, dark-blue, or black, for silk and woolen goods. Point three for me and Jamaica."

Cattle and Coconuts.—On our trip we have seen plenty of sugar-cane, with strange-looking oxen hauling the cane-carts. "These oxen don't look like the big red ones in Cuba," says Fred. "No," Edward answers, "these are partly Hindu cattle. Notice that they're rather small, and see how light-colored they are. In India they are called ze'bus, or humped cattle. Here in Jamaica we find them strong and quick, and they endure work under the hot summer sun."

Taking leave of brisk Edward, we climb on board a train and go merrily off to the north coast, crossing the backbone of the island. Negro women stand at the stations, offering green coconuts for sale. "I don't want any old dry coconut," says Jack. "I'm thirsty."

"Well, old chap, look here a minute," cheerfully observes a stout planter. The coconut-seller takes her "cutlass," and

chops the end off the coconut; then the planter hands the beheaded shell to Jack. "Drink that," is his advice. A smile runs all the way back to Jack's ears as he absorbs the cool, refreshing juice or "water" that partly fills the nut. "Best thing you can drink on a hot day, young man," the

Reproduced by permission of the Philadelphia Commercial Museum

Zebus in Jamaica. What strange cattle did we notice in the Hawaiian Islands?

planter remarks. "Thank you, sir; I've learned something new," Jack replies.

The Bountiful Banana.—The train is now passing through a sea of green leaves, fields full, valleys full, very luxuriant, but very ragged looking. We have come to the banana-fields, which mean so much to Jamaica, and we must take time to study the banana industry; so we establish our-

selves at a good hotel in the town of Port Antonio. There it is fine and cool, for the town stands on a peninsula between two bays, and there is nothing to stop the refreshing trade-

Reproduced by permission of the Philadelphia Commercial Museum

Carrying bananas in Jamaica. In the background is a breadfruit tree. Of what use is the breadfruit?

wind that rustles the coconut palms and waves the foliage of the bananas.

Before the Civil War, our girls and boys in the United States hardly ever saw bananas, and scarcely knew how they tasted. Some of the Yankee sea-captains, however, used to bring home bunches of bananas as a great treat to their families and friends. Captain Baker, of Boston, did so, and his

friends liked the bananas he brought so much that every year he was kind enough to bring more. At last the captain decided, "If bananas are so popular, I might as well go into the business." So he formed a company and began to import bananas. The captain and his company made a fortune. Jamaica did a wonderful business, and the people of the United States found a new supply of food from the tropics.

For days and days we wander among the big banana-plantations that surround Port Antonio, until we have learned lots of things we never knew before. The banana-plant, we find, is often called a tree, but is more like a weed. Its spongy trunks grow up like Jack's beanstalk, and a big purplish flower appears, then before long an immense bunch of bananas is ready to be picked. "But they grow upside down!" cries Alice. That is, the weight of the bunch bends the stalk over, so the bananas seem to grow up into the air away from the ground.

The bunches are called "stems," and each "stem," to be exported, must have at least nine "hands" or circles of bananas, each "hand" bearing about a dozen "fingers" or separate bananas. "Stop, I must count that up," Jack says. Each banana-stalk produces but one "stem"; so when that is cut off the stalk is also cut down, and in a little while up comes another shoot, all ready to produce more bananas next year. Bananas produce more food to the acre than could be raised from grains. "But I don't suppose that bananas are as good for us as wheat," observes Fred.

The Banana Goes Traveling.—For a long while bananas have been Jamaica's greatest export, and no other land of the same size as Jamaica produces so many bananas; but now other Caribbean regions that are hotter and steamier than the northern coast of Jamaica are sending their contributions of bananas to Uncle Sam. Although nothing else

in Jamaica is quite so important to her as is the banana, the United States could very easily get its banana supply elsewhere. There are fewer bananas and there is more sugar in Jamaica than there were ten years ago.

A steamer is lying at the Port Antonio wharf, waiting for a cargo of bananas, and we hurry down there to see the fruit go on board. The bananas ride in state, each heavy bunch on the head of a dusky carrier. "But all the bananas are green as can be!" says Fred, gazing at the endless chain of laborers. "If they weren't green they wouldn't keep until you Yankees could eat them," answers the man who tallies the bunches as they pass along the gang-plank.

"Well, I'd like to have some bananas ripened on the trees," says Ruth decidedly. "They must taste much better."

"Strange to say," the young man replies, "the banana isn't so good if it ripens on the tree. I don't know why, but that's a fact. This fast boat will carry tens of thousands of bunches, and they will be kept cool so that they won't begin to turn yellow until they arrive in the United States. They will be unloaded very quickly by machinery and then will be carried away in refrigerator-cars. So quickly are they transported and so cheaply are they hauled that bananas are the cheapest fruit for its weight that you can buy."

"But is it the best fruit for food?" asks thoughtful Alice.

"No, I wouldn't say so," replies our new friend. "It's very starchy, and in the tropics would almost take the place of bread, though of course other kinds of food would be needed to make a balanced meal. The banana-plant is so productive that it's a real blessing to mankind."

"Don't they sometimes call bananas 'plantains'?" Jack inquires. "Well," comes the answer, "there are many kinds of bananas, and some are never good for eating until they are cooked. Such bananas are really plantains."

As we leave Jamaica we realize that this one small island has taught us many valuable things and has helped us to understand a great deal about the tropics.

QUESTIONS AND SUGGESTIONS

1. Why did England abolish slavery before the United States did so?
2. What was the effect of abolition on the British West Indies?
3. What causes land and sea breezes?
4. Why have many Hindus emigrated to Jamaica and other British possessions?
5. How has the banana trade benefited the United States and Jamaica?

CHAPTER XVIII

THE ISLAND WITH TWO FLAGS

Haiti the Divided.—It is not easy to secure passage directly from Jamaica to the next island we wish to visit, for the big steamers from New York or New Orleans usually go to only one of the large islands and then return directly to their home port. At last, however, a vessel is found so that we may continue our journey, and, crossing the Windward Passage east of Cuba, we sail in between the great peninsulas, like horns, which jut out from the western shore of the island of Haiti.

Haiti is about half the size of Cuba. Its name means "high land," and well named it is, for it is the most mountainous of the West Indies. Fred is looking at a map of Haiti which he has spread out on the cabin table. "What's this line that divides the island from north to south?" he wonders. It shows that two peoples share Haiti; this island is the only important one in the world which is the property of two independent peoples whose government extends no farther. There is an interesting chapter of history at the bottom of this fact.

A Stormy History.—The first Christmas Day that Columbus passed in the New World was spent in Haiti, but a sad day it was, for his flagship struck upon a reef and went to pieces. Fortunately a friendly chief sent out a swarm of canoes which rescued everything that could be taken off the vessel; then he royally entertained his white visitor. Would he have been so kind if he had known what deadly visitors the Spaniards would prove to be?

Instead of its native name of Haiti, Columbus called the fair island Hispanio'la or Little Spain, and the Spaniards settled down to rule it. In a few years they had killed or worked to death so many natives that they began to import African slaves. After a time, adventurers, mostly French, settled on the island because of its riches. Because they lived at first largely by killing cattle and selling to ships the smoked and dried meat called "boucan," these men were called "buccaneers'," and soon the words buccaneer and pirate came to equal each other.

Before many years the French obtained such a hold that at last Spain agreed to give them the western part of Haiti; and for almost a hundred years the rich crops of coffee and sugar-cane made this portion a rich, prosperous, and well-settled region. During the time of the French Revolution, however, the slaves, who outnumbered the whites and the free colored people by six or seven to one, rose in rebellion and massacred all the whites in the interior. For a number of years Haiti was a hotbed of battle and torture; in spite of the efforts of the French, they were finally driven from the island, and the Haitian chiefs proclaimed a negro republic. For a time the president of this republic ruled the whole island, but in the end the eastern or Spanish part of the island, about three-fifths of its area, declared itself the Republic of Santo Domingo.

Port au Prince. The Marines.—It is to the capital of Haiti, Port au Prince, or Prince's Port, that we are going. When we land, we find ourselves surrounded by colored people, for nine out of every ten of the Haitians are jet-black, and almost all the rest are strongly mixed with negro blood. Fred, who knows some French, listens eagerly to the conversations around him, but shakes his head. "It

doesn't even sound like French," he says. Fred is right, for the language spoken by the Haitians, though it began as French, is so changed and so mixed with African words that no Frenchman could understand it without special study.

Port au Prince has about one-third as many people as Havana, but it is not nearly so prosperous looking. There are asphalted streets, a number of automobiles, some good shops, but a large portion of the town is poorly built. This is due partly to the earthquakes which have shaken the city at intervals, and partly to the poverty of the people. We find no trolley-cars in this city, though it is the size of Des Moines or Fall River. Those too poor to hire motor-cars or carriages may ride donkeys or go afoot.

We find that there are some hundreds of Americans living here, busied with exporting or importing goods. Occasionally we see an American in uniform, for Haiti has been under the protection of the United States since 1915. In that year the president was killed by a mob, and our marines landed to preserve order. As Haiti also had not paid interest on money loaned by foreign creditors, the United States assumed charge of both her financial arrangements and her public safety. In 1924 matters in Haiti seemed so favorable that Uncle Sam withdrew his men from the interior of the island, leaving only a few marines in certain seaports.

As we stroll about the city, Ruth says, "Why, the houses don't have any glass in the windows!" That is true, for Port au Prince is hot and muggy, and every one wishes to let all possible breeze blow through his house. At last we come out on the big square in front of the cathedral and see a thousand market-people squatting or standing there selling a marvelous collection of articles. Alice and Jack don't want

any live chickens or calico goods, but they do want fruit, so Alice buys a pomegranate, which she says is tasteless and full of seeds, and Jack bites into an avocado or alligator pear, which he says is full of oil. "Try a mango next time," says Fred, laughing to see them so disappointed.

Coffee is King.—"What's the greatest product of Haiti?" Ruth asks. "Is it sugar, as in Cuba, or bananas, as in Jamaica?"

Sugar it was once upon a time. The central part of Haiti is a great plain with mountains to the north and mountains to the south. In the times of the French this plain was filled with thousands of sugar-plantations. To-day old iron kettles for boiling the cane-juice are found by hundreds, rusty and neglected, and many a fine mansion of the former planters stands ruined and hidden by jungle. The Haitians make very little sugar now, but they do raise excellent coffee.

In the northern part of Haiti we find the great coffee district. Here grow actual forests of coffee-trees with their evergreen leaves. On the trees Alice spies fruit that looks like cherries, but these are berries that hold within their sweet pulp two grayish seeds, their flat sides clinging together. When ripe, these berries are freed from the pulp and dried on floors in the sun. We don't get much Haitian coffee, for France is glad to take as much as possible. Once the coffee of Haiti was called the finest in the world, but that was when the French planters pruned and cultivated their groves. Now, like so many of the people, the coffee-trees are neglected and half wild.

If it were not for coffee, however, the republic of Haiti would have very little money. Though there are many well-educated people, the mass of the people are happy-go-lucky and ignorant, living in the country, in little thatched cabins,

and managing to get along on a very small income. Their life may be expressed by their proverb, " Never cross a bridge if you can go around it," meaning, that it is easier to wade through the streams than to repair the bridges. People in the bountiful tropics are apt to become lazy and to live from hand to mouth.

Across the Line.—" Now, Alice," Fred says, " you'll have a chance to try your Spanish, for we're going to cross the border into the republic of Santo Domingo." A rattling Ford which we manage to hire takes us across the line; it dashes through streams, over rutty and rocky highways (for the people of Santo Domingo don't like to build roads), until we almost lose ourselves in a sea of sugar-cane. " We seem to meet fewer people here than in Haiti," remarks Alice, as she nods to a passer-by who calls out " Buenos dias," or " Good-day." Yes, although Santo Domingo is twice as large as its sister republic, it has less than half as many people. These have much Spanish blood, and are very proud of it.

After a while we reach a stretch of good road, which soon leads us to Santo Domingo City, capital of the country. An old, old place, as far as American history is concerned, is this curious city, which puts St. Augustine and Santa Fé quite in the shade as to age, for it is the oldest city built by white men in the New World. The very first town founded was established by Columbus on the northern shore, and he called it Isabella after the queen who befriended him. After three years had passed, the Spaniards found gold in the rivers toward the south, so they allowed Isabella to fall into ruin and built this new city on the southern coast.

The small city, more than four hundred years old, is filled with memories of great Columbus. At the harbor we come upon a big old tree, disabled by the storms of centuries, and a passer-by informs us that Columbus tied his caravel to this

Courtesy United American Lines

Coconut palms. There are many of these in the island of Santo Domingo, indeed throughout the West Indies. The coconut palm usually grows near the ocean.

as a mooring. "Certainly the tree looks old enough for that," says Jack. Turning back, we pass through a gate in the ancient wall, at least twenty feet thick, which encircles Santo Domingo.

Memories of Columbus.—Beyond the gate there rises an immense ruined castle, where Diego Columbus, son of Christopher, lived when he ruled the island. The story goes that he built his castle so strongly and armed it so well that the king of Spain grew suspicious and ordered Diego to come back at once. Not far away are the ruins of the fortress where Columbus was imprisoned by his enemies in 1500. That year seems very far away and yet very near as we look at the crumbling walls which held the great navigator.

A few steps farther, and we are in the Plaza Colon', or Columbus Square, for Colon is the Spanish form of the Admiral's name. Here stands a bronze statue of Columbus, with arm outstretched, pointing westward. On one side of the plaza, behind the statue, we catch sight of the enormous dome of the old cathedral. "There is a great treasure inside," we are told. "Go in and you will see it."

No, the treasure is not the high altar, covered with sheets of silver from the mines, it is not the golden vessels used for service, it is not the fine paintings by old Spanish masters. "Here it is," whispers Ruth. We stand before a marble monument, guarded by marble lions, and within the monument a marble urn contains a leaden box, holding the remains of Columbus, the Discoverer, great in fortune and in misfortune.

When Columbus, poor and neglected, lay dying in Spain, he asked that his body be taken across the sea to be buried, and this was done. It has been claimed that his bones were later taken to Havana and then to Spain again, but those who ought to know best say that the real remains of Colum-

bus still rest in the great cathedral of Santo Domingo. In the roof of the church there is pointed out to us a cannon-ball, fired there when Sir Francis Drake and his men pillaged Santo Domingo.

Santo Domingo and Uncle Sam.—"Do you know," says Alice, "that the land of Santo Domingo came near belonging to the United States?"

"No," declares Jack. "You're trying to fool us."

"But it's so," Alice persists. "I read to-day that while General Grant was President the Dominican Republic wanted to be annexed to our country, but when the treaty came up in our Senate it failed by just one vote to be approved. See what one vote can do."

"Does the United States have anything special to do with Santo Domingo now?" asks inquisitive Jack.

"Yes," Fred replies. "For a number of years we had looked after the financial affairs of the island, so that the republic wouldn't go bankrupt; but while we were doing that, and doing it very well, political affairs went from bad to worse. Finally, after there had been five revolutions in six years, we landed marines, just as we had done the year before in Haiti, and ran the government for awhile. In 1924 it seemed that Dominican affairs were in good condition, and we began to withdraw our forces."

"I don't see, though," says Jack, shaking his head doubtfully, "why Uncle Sam should take so much interest in these West India islands. Why don't we stay at home and let them attend to their own affairs?"

"Well, as far as I can see," remarks Fred, "this is the way of it. Many years ago we warned European nations, by what we called the Monroe Doctrine, that they must keep their hands off the little new republics in the New World and give them a chance to develop. But soon Uncle Sam

found out that if he was going to protect these weaker republics, he must see that they paid their debts and safeguarded the lives and property of foreigners.

"That is why we have been a sort of father to some of these countries. Sometimes they don't appreciate it, for they think that we are taking away their liberty. In Santo Domingo, for instance, our marines wouldn't let people have firearms, and as even the little boys were used to carrying big revolvers, there was grand seizing of 'shooting-irons.' Nearly a quarter-million pistols were thrown into the ocean so that the country would be a safe place to live in."

"I think I understand now," says Jack.

In the Cacao Grove.—In the southern part of the republic sugar is the great product. In various places the axmen are felling the forests to make way for more cane, to fill the creaking ox-carts and the rattling railway cars on the big plantations. "If the people on the island of Haiti would only stop raising Cain and raise more cane, they would be better off," goes a usual saying.

We pay a visit to the northern part of the country, for we wish a sight of the far-stretching cacao groves. Where cacao trees grow, one may know that there is the kind of climate that we call "tropical," with plenty of heat and plenty of rain. Into one of the plantations we find our way, and pass between the rows of low much-branched trees that grow best in the shade of larger trees.

"Oh, look at those queer things!" cries Ruth in surprise. "What in the world can they be? They grow right out of the tree-trunks!" Sure enough, here are objects with warty skins somewhat like yellow or red canteloupes, attached to the trunk and the branches of each tree, with no stems, or at least none that Ruth notices. Jack, of course, picks one off and

cuts it open, finding within a sweetish pinky pulp. In the pulp appear twenty or more pale seeds, which are cacao

Reproduced by permission of the Philadelphia Commercial Museum

A cacao tree. The fruit is so heavy that the trees must be grown in places sheltered from the wind, else the fruit would fall before it was ripe.

"beans." The paleness is only a skin, and when that is removed the dark-brown, bitter kernel is revealed.

Delicious Beans.—Near the cacao plantation we see a brick platform on which the "beans" are spread out. Here they will be dried in the sun after having "sweated" or fermented in bins or piles for several days; then the sacks of beans will be ready to go to the chocolate-mill. "That's

Reproduced by permission of the Philadelphia Commercial Museum

Opening the cacao pods. How many beans are in a pod?

what I want to see!" exclaims Alice. "Chocolate is my favorite candy and my pet flavor for ice-cream and soda."

At the factory the seeds are roasted and then the skin is easily removed. "Do you see this bean?" asks the manager, holding aloft the brown object as if he meant to do a trick with it. "This is half oil, and so it is very nourishing. In fact, it has so much oil that to give it to some people just

as it is would not agree with their digestions; we could press out about two-thirds of the oil or fat and still leave plenty.

"When the cacao beans are crushed into powder this is chocolate, that you like so much, although it needs to be sweetened for your taste. If from the chocolate a considerable part of the oil is extracted, the result is cocoa. If we want to make very rich chocolate, we put into it an extra amount of the 'cocoa-butter.' The 'cocoa-butter' itself is good for softening the skin, and is sold in large amounts. There you have the whole story. I might say that Uncle Sam buys more cacao beans than any other customer in the world. He has the chocolate factories, for we don't do much manufacturing of any kind on this island."

"Stop a minute," says Fred, "I want to get this straight. The beans are cacao, and when they are ground up they're chocolate, and when part of the 'butter' is taken out, the powder is cocoa. Is that right?"

"Yes, sir, you are entirely correct. Go up head," answers the manager.

QUESTIONS AND SUGGESTIONS

1. Find other islands of the world which are divided between nations.
2. Tell your class just how it happened that Columbus' vessel was wrecked on the coast of Hispaniola.
3. Report on the crazy Haitian leader Christophe and his wonderful palace.
4. How much older than St. Augustine or Santa Fé is the city of Santo Domingo?
5. How did Uncle Sam apply the Monroe Doctrine to Cuba?
6. In chapters 11 to 19 of "Marines Have Landed," by Lieutenant-Colonel Giles Bishop, read how the marines, Richard Comstock and Henry Cabell, rescue little Soledad, who had been kidnapped in Santo Domingo.

CHAPTER XIX

PORTO RICO AND THE VIRGIN ISLANDS

Reaching the Island.—The steamer comes into sight of Porto Rico, and we all try to find out as much as we can about the island. It's only fifty miles from the nearest Santo Domingo town, but it's a thousand miles from Havana. Fred has his trusty map out again. "Porto Rico is the smallest of these four good-sized islands that are near the United States, I see," he says. "The map says that Cuba, Haiti, Jamaica, and Porto Rico compose the Greater Antil'les, while this long string of small islands that curve southward is known as the Lesser Antilles. That's a queer name, Antilles; I wonder where it came from."

Fred disappears, but soon he hurries back. "The purser told me," he eagerly remarks, "that on the maps of Columbus' time the geographers put a big island called Antilia near the coast of Asia. Columbus, you know, died believing that he had reached Asia. So it was natural, when he discovered not one, but several large islands, to call them Antilias or Antilles."

"So Porto Rico is the least of the Greater Antilles," remarks Ruth. "Does it amount to much?"

"I'll say it does," replies Fred. "This gazetteer of mine says that it has many more people than Jamaica, so it must be thickly inhabited, for we thought Jamaica had a lot of people in proportion to its size. And Porto Rico has a pretty good sort of people, too."

San Juan.—Meanwhile, our vessel has approached the chief city, San Juan (Hwan). "I spy," cries Jack, "I spy a wall!" Yes, an old wall, with stone sentry-boxes project-

ing from the corners, defends the seaward side of the city. San Juan still keeps her high walls, and the Spaniards once thought that no enemy ship could pass the fort at the narrow harbor entrance, Morro Castle, like that of Havana. Sir Francis Drake, indeed, was beaten off by its fire.

As we anchor in the harbor we find ourselves back of San Juan, for the old city is on a small island with steep

Reproduced by permission of the Philadelphia Commercial Museum

San Juan. The building at the right is the Governor's palace, built where once stood a fort. The gate in the city wall was formerly the chief entrance.

cliffs along the Atlantic side. Bridges connect the city with the mainland. The American flag floats over San Juan, for Porto Rico belongs to Uncle Sam. Our forces captured it without any such battles as took place in Cuba.

"Is Porto Rico a state then?" asks Alice. No, it's a sort of territory. The people are classed as American citizens, but they pay no taxes to the government at Washington. Like Alaska and Hawaii, they have a governor sent from the United States and have a person who can speak for them in Congress, but who cannot vote.

When we land, we notice that San Juan, although smaller, is much like Havana. There are the same narrow streets that shut out much of the glaring sun, and there are many Spanish-style buildings with their balconies, their iron-grated windows, their patios, and their flat roofs. There is the same hustle and bustle of business, the same clang of trolley-cars and rush of automobiles. In San Juan the new and the old mix amazingly.

The City of Ponce de Leon.—"This I call the city of Ponce de Leon," says Fred, who has been reading up his history. "Ponce came over from Haiti, conquered the island, picked out a good spot and founded this city. He called it San Juan Bautista de Puerto Rico, or St. John the Baptist of the Rich Port, but somehow or other the Puerto Rico got separated from the city and became the name of the island. Now we call it Porto Rico instead of Puerto Rico—maybe that's easier to say.

"Do you see that big white building up high in the city?" continues our historian. "It's the White House, 'Casa Blanca' in Spanish, where Ponce's adopted son lived. Doesn't it bring those old days near us?"

"Ah!" cries Ruth, as we pass a plaza. "Look at Ponce himself, standing there before us. I'd be very much disappointed if his statue weren't here."

Alice has to brush up her Spanish again, for, although Uncle Sam has done many things for Porto Rico, he hasn't made English take the place of Spanish. A thousand or more school-houses founded by our country are dotted over the island, but half the people can't read or write even in Spanish, and, of course, they haven't been anxious to learn a foreign tongue.

Partly in English and partly in Spanish, the girls manage to buy a number of pieces of fine embroidery, for which Porto

Rico is famous. They learn not to go shopping during the heat of the day after luncheon, but instead, Alice and Ruth follow the Spanish custom of taking a pleasant nap or "siesta" during the early afternoon. The steady trade-wind sings through the windows of their room, making the air just right as long as they stay out of the sun's beams.

Across the Hills.—"To prevent you girls from buying all the embroidery in the shops," says Fred, decidedly, "we'd better take a motor trip. My map shows that Ponce, named after our old friend, is about eighty miles away in a straight line, on the south coast; so as Ponce is the second city in size we'd better go there."

There is a railroad from San Juan to Ponce, but it goes all around the western part of Porto Rico, keeping to the shore, so it isn't by any means a direct road. "Why didn't they build it right southward?" Jack wishes to know. "Why," say the girls in chorus, "if you were an engineer you'd know the middle of the island is so mountainous that it's much easier to run all around Robin Hood's barn."

Therefore, we hire a big car, whose driver promises to drive slowly; but we find that "slowly" means not any faster than fifty miles an hour. However, we take the good Military Road southward over the hills, winding through fields of cane, for Porto Rico produces about as much sugar as do the Hawaiian Islands. Our country doesn't charge these island possessions any tax on their sugar, so they have an advantage over the rest of the West Indies. Presently great snowy patches appear on the hillsides. Porto Rico never has frost or snow, so it isn't winter that causes this whiteness. Soon we see that the patches are made of cheese-cloth covering immense tobacco fields. At a distance they look like clothes spread on the grass to dry. "Sugar and tobacco," Ruth remarks, "those are Cuban products, too."

Down the hills we skim and up the hills we climb, until the backbone of the island is near. Now we come to coffee plantations, for coffee likes the highlands of the tropics. We have already passed so many banana and orange trees that we remember a traveler's description of Porto Rico—" It's

Courtesy Rau Studios

A small town in the coffee lands of Porto Rico. Coffee flourishes best at a moderate elevation above the sea. It is a plant of the tropical uplands.

just a sort of big grocery-store and fruit-stand." The pineapples and grapefruit of the island are also very fine, and there is a considerable trade in early vegetables for the northern cities.

Ponce.—We find Ponce hotter than San Juan, because the mountain backbone cuts off much of the trade-wind and because the city lies at a little distance from the sea. How-

ever, though we don't care much for the climate, we do admire the skilful work of the people. Here are offered palm-leaf hats and neatly made hammocks. Here is excellent furniture which we wish we could take home, and Jack can't resist buying one of their queer little guitars. The Porto Rico people are quick to learn a trade of any kind and are clever workmen.

We go down to the docks and see steamers loading with bags of sugar and coffee, and crates of oranges. We see lots of American goods coming out of the holds of other vessels to supply the Porto Ricans. "Strange to say," declares Alice, as we travel back, "I never thought much about the interest that Uncle Sam has in tropical countries. We could get along, I know, without sending any goods to such warm lands, but we wouldn't want to do without their cane-sugar, coffee, bananas, oranges, grapefruit, and pineapples; and I think many men would miss the fine tropical tobacco if it didn't come to us. I'm going to be more interested in the big warm islands after this."

"Do you want to see some of Uncle Sam's smaller islands?" asks a vessel captain who is riding in our trolley-car, "Indeed I do," each of us answered in chorus. "Very well, come aboard my ship to-morrow at nine," responds the captain.

Islands of the Virgins.—So it comes about that the next day we start eastward on our way to the Virgin Islands of Uncle Sam. Columbus, like other Spaniards, had a habit of naming new places after various saints. When he reached this group of islands, which seemed very numerous, he said, "I'll call these after the famous eleven thousand virgins of St. Ursula, who were killed by the Huns at Cologne." So they were called the Virgin Islands. Great Britain finally took possession of part of these, and Denmark secured the

rest. There were only three of the Danish islands that were inhabited—St. Thomas, St. John, and St. Croix, or as the Spanish called it, Santa Cruz.

Secretary Seward, before he bought Alaska from the Russians, tried to buy the little islands of the Danes, but the idea did not prove popular. Although a coaling station had been established there, and many ships came there for supplies, the islands were not very prosperous. The United States did not see any special reason why we should take these Danish West Indies. When the World War broke out, however, our country foresaw that if we entered the war it would be well to prevent any enemy from getting such a good position for commanding the Caribbean, and we quickly paid a good round sum, as military insurance, to obtain these outposts.

For each acre of the islands we paid a price which would buy at that rate in the United States excellent farm land equipped with fine buildings. Many people say that Uncle Sam made a poor purchase, for these Virgin Isles will never repay even the interest on the money they cost. Altogether they cover less surface than does the city of Chicago, and they contain about as many thousand people as there were millions of American money paid out for them.

Hard Times.—As St. Thomas, the nearest island to Porto Rico, is reached by crossing only forty miles of open sea, our voyage is not long, and before many hours our vessel reaches St. Thomas harbor, which, the captain says, is one of the best in the world, mountains rising high above its sheltered bay. When we go ashore, most of the people that we see are negroes. In spite of the fact that the Danes held these islands so long, the prevailing language has for many years been English, so the people did not have to learn it when Uncle Sam's flag rose over them.

Once upon a time hilly St. Thomas raised considerable sugar-cane, but now Cuba and Porto Rico can produce sugar with less labor, so most of the people have abandoned farming and crowded into the town of St. Thomas; but even there it is not easy to make a good living. The island of

Courtesy United American Lines

The town of St. Thomas was called by the Danes Charlotte Amalie, but when we bought the Virgin group the name of the town was made the same as that of the island.

St. John has largely gone back into wilderness. St. Croix, to the south, is the best cultivated of these islands, and still raises much cane, but only on her lowlands.

"These Virgin Islands ought to remind you of the barber-shop," smiles our captain. Jack's eyes grow big, as he looks up in surprise. "Yes, I mean it," the captain continues. "Didn't the barber ever put bay-rum on your hair, or on somebody's face after shaving?"

"Yes, yes!" says Jack. "Did the rum come from the bay?"

"No, not from the salt water," laughs the captain, "from the bay-trees with their spicy leaves. The leaves were distilled to get out their oil, and this oil was mixed with the rum that was distilled from molasses. Santa Cruz rum was a great favorite with the sailors of old times. However, even bay-rum isn't sold in such great amount as it used to be, and living is a little hard in the Virgin Islands. The people certainly aren't even so prosperous here as they are in Porto Rico, therefore, like the Porto Ricans, they are coming in considerable numbers to the United States.

QUESTIONS AND SUGGESTIONS

1. Sketch a map of Florida and the Greater Antilles.
2. How does Porto Rico resemble Cuba?
3. Which side of Porto Rico would you find to be the cooler? Why?
4. Make a list of places on the map of North America which are named for saints.

CHAPTER XX

LEEWARD AND WINDWARD

A Map-Lesson.—"Are there any more little islands for us to see?" asks wide-awake Jack.

"Come here and I'll give you a map-lesson," the captain says. "Look at Cuba on this map. West of it you see a peninsula called Yucatan, which is part of Mexico. Between Yucatan and Cuba is a passage that unites two great bodies of water that are almost inclosed by land. On the north is the Gulf of Mexico, and on the south is the Caribbean Sea. We're sailing in the Caribbean Sea now.

"Look again. You'll notice that the southern and western shores of the Caribbean are solid mainland. On the north the limit of the Caribbean is made by the islands of the Greater Antilles, while on the east there is a chain of small islands, stretching from Porto Rico all the way to the coast of South America. You've already seen the first of these Lesser Antilles by visiting the Virgin Islands, and if you would like to stay with me as passengers, you may see the rest of these small islands, for I am going there now."

"Indeed we will stay with you," says Fred, who has been bending over the map, "for we're out to complete our knowledge of North America. But why are some of these Lesser Antilles called 'Leeward Islands' on the map, and those farther south the 'Windward Islands'?"

Sailors' Names.—"Of course you know," the captain answers, "that leeward and windward are sailor words that relate to the wind. The side of the ship toward the wind is the windward side and the sheltered side is the leeward

one. On a cold day you like to be on the 'lee' of some fence or wall, so that you will be protected from the nipping breeze. In this part of the world there isn't any cold wind, but there is a steady wind."

"The trade-wind, you mean," cries Ruth in a hurry. "It blows from the northeast, and the islands that it doesn't hit are the Leeward Islands. But I should say that it struck all these islands the same."

"Yes, that's right," observes our friend. "These Leeward and Windward names that you see on the map are geographical mistakes. The Spaniards, who first used these names, were pretty good sailors, and knew what they were talking about. They called all this chain of the Lesser Antilles the Windward Islands, which was right. By the Leeward Islands they meant either the Greater Antilles or else some of the small islands along the north shore of South America. Somehow, though, the English confused matters and used these names just to point out political divisions."

"What do you mean?" asks Alice in wonderment.

"Look at the map once more," the captain answers. "The letters 'Br,' meaning that the British own the land, are scattered all along. Only two islands of any importance belong to the French. One of these, Martinique (Mar-tin-eek'), lies about midway of the chain. The British call their islands to the north of Martinique the Leeward Islands and those to the south of Martinique the Windward Islands. There is one governor for the British Leeward Islands and another for the Windward Islands. There you have the main difference."

A Glance at the Islands.—"Can you tell us something about these islands before we reach them?" says Fred. "Are they much alike, really?"

"Yes," comes the response, "they are greatly alike. All

except one are the tops of great mountains, just appearing above the water, which is very deep. In many places the cliffs rise directly from the sea. On these highlands the clouds drop abundant rain. Sometimes during the summer fearful hurricanes destroy houses and crops. An old rhyme says:

"July, stand by,
August, come it must,
September, remember."

"Most of the people of the islands are negroes, for the estates of the planters in old times were worked by negro slaves. Sugar was and is the chief crop, and these islands were known in England as the Sugar Islands. The planters once lived in princely style in their 'great houses,' for labor was cheap, sugar sold well, and money came rolling in.

"Then Great Britain abolished slavery in 1834, long before the United States imitated her, and not long afterward put in a free-trade system by which the cheaper sugar raised by slaves in Cuba, Porto Rico, and Brazil was allowed to come and drive the sugar of the 'free islands' out of the market. Then the beet-sugar of Europe began to be a rival of cane-sugar. The planters of the Sugar Islands fell on evil days, and the islands had a hard time; but now affairs seem to be better."

Nevis and Guadeloupe.—Steaming south, we pass the island of Ne'vis, made of an old cone-shaped volcano. Its hot springs were once so famous that it became the most fashionable English island, and was known as the "Gorgeous Isle." Here Alexander Hamilton was born. When only twelve years old he wrote such a good description of a hurricane which had visited the island of St. Croix that his friends sent him to get a better education in New York,

Reproduced by permission of the Philadelphia Commercial Museum

This woman has chopped off the end of the green coconut so that the young buyer can get at the palatable inside.

and he never returned to the West Indies. The one-time capital of Nevis, Jamestown, now lies sunk, like Port Royal, beneath the waters, and the "Gorgeous Isle" is almost forgotten.

Next we sight Guadeloupe (Gwa-deh-loop′), largest of the Lesser Antilles, made of two islands, connected by a short bridge, one filled with majestic, massive mountains, and the other flat and overspread with cane, whose juice is converted into mild sugar and fiery rum. Here we hear the French speech and see the blue, white, and red of the French tricolor flag. In the buzzing market-place of the chief town the eyes of the girls are taken by the picturesque costume of the French colored women. These, tall, good-looking and clean, tie up their heads with a gay cloth of "madras," their gorgeously hued dresses have full skirts, stiff with starch, and over their shoulders is folded a brilliant silk kerchief or "foulard." Gold beads, heavy ear-rings, and big bracelets add to the striking effect. This costume is seen in the two other large islands where French influence prevails—Dominica (Dom-in-ee′-ka) and Martinique. "It would go well on the stage," remarks Ruth admiringly.

Island of Limes.—Soon after leaving Guadeloupe we reach Dominica, which is French in character, though owned by Great Britain. Loveliest of all these islands is Dominica. It also rises highest into the sky, for the top of its old volcano is nearly a mile above the sea. Being the highest island, it naturally attracts most rain. Jack gets soaked to the skin by a deluge of rain which falls from a clear blue sky, and there are few days when there is not a tropical downpour for an hour or two. Few places on earth receive more moisture.

This moist, hot climate suits not only sugar, but also cacao; yet the chief product of Dominica is neither of these. When the islands were in financial distress because sugar

didn't pay, a far-seeing doctor induced one of the planters to try raising limes. Here comes a long procession of women leading donkeys whose wooden paniers are loaded with the little round green lime-fruit. Jack snatches a lime as the donkey passes, and bites into it.

"Oh, gracious!" cries poor Jack, with his mouth all puckered. "I never tasted anything as sour as that before! Never again!"

"Yes," laughs the captain, "I could have told you that lemons are sour, but limes are three times sourer."

"What do people want with limes anyhow?" growls Jack as soon as he has recovered.

"Didn't you ever taste lime-drops?" the captain asks. "That taste is delightful and refreshing. If you want to get a summer drink that takes the thirst away, try limeade, not lemonade. The oil from the limes perfumes fine soap. In old times the sailors on long voyages, not having fresh fruit or vegetables, used to be attacked by that terrible disease, scurvy. Their teeth fell out, they wasted away, and finally died. At last Great Britain required her vessels to carry barrels of lime-juice and to dose the sailors with that every day. It kept the scurvy away in almost every case."

"Goodness, it sets my teeth on edge to think about it," groans Jack, who has not yet found his good temper.

"Don't live here, then," is the answer, "for Dominica produces more limes than any other place on earth."

Sons of the Cannibals.—"See these fellows coming down that mountain trail," Fred observes. "They don't look exactly like the negroes we've seen here. Are they natives of this island?"

The new-comers that Fred sees are short, muscular, coppery of skin, and have straight hair. They are the real natives of these islands, whose people were there long before

any white or black men arrived, for these are Car'ib Indians, the Caribs whose name is given to the Caribbean Sea.

The Indians that Columbus first discovered in the New World were inclined to be gentle and friendly, but farther south, on his next voyage, the Spaniards found the warlike Caribs, who were slowly making their way north through the Lesser Antilles, conquering as they went. Columbus' sailors saw human flesh roasting over the fires of the Caribs, so the word "caribal" was used to mean eaters of men. A small change in "caribal" gives us our word "cannibal."

When the Lesser Antilles were settled by the white men, the Caribs fought the intruders desperately, and the whites for a time had to give up trying to settle in certain islands. Spanish, French, Dutch, and British—the Caribs battled with them all, until after many years, when most of their people had fallen, the Caribs surrendered. They were given two reservations, one on Dominica and one on the isle of St. Vincent, much farther south. But in 1902 the volcano of St. Vincent burst into action and killed nearly all those on the Carib reservation, leaving only the few hundred now on Dominica, and even those are somewhat mixed with negro blood.

Alphonse the Guide.—Southward again we go, and reach Martinique, French like Guadeloupe. The town of Fort-de-France, where we land, is named from the old fort which keeps watch over it. Once more we hear "Oui" (pronounced "we") instead of "Yes," and once more we admire the striking costumes of the negro women.

In the big grassy central square of the well-built town stands a marble statue of a beautiful woman. "Who is that?" Alice asks of a cheerful boy, Alphonse Pinnot, whom we have engaged as guide. "That is Josephine, who married the great Napoleon and became Empress of France," replies Alphonse. "She is looking across the bay at the place

where she was born. Because her parents' big house was destroyed in a hurricane, they turned an old sugar-mill into a home, and there little Josephine lived for years and years. She didn't dream that some day she would be mistress of palace after palace."

"What does your island produce, Alphonse?" inquires

Reproduced by permission of the Philadelphia Commercial Museum

The town of Fort de France, Martinique. In 1839 it was partly destroyed by an earthquake. Several times it was captured by the English, the last occasion being in the time of Napoleon.

Alice. "Sweet sugar-cane, fiery rum, and fragrant cacao," is the answer. "Our island has a good trade, and everything is peaceful here. We shall be happy unless—"

"Unless what, Alphonse?"

"Come with me to-morrow morning, and I will show you," says our guide, with a very sober face.

The Ruined City.—Next morning Alphonse takes us on board a little steamer which travels northward for several hours; then we come to a wharf and catch sight of a wilderness of ruined gray walls, which the tropical jungle is trying to hide. "That is St. Pierre (Pe-air'), our old capital," says Alphonse, shaking his head sadly. "I will tell you about it.

"St. Pierre was a fine, fine city, built all of stone; it was rich and gay. You see that great mountain towering over it—that's Mount Pelée (Pay-lay'). Martinique is very mountainous, all humps, and old Pelée is the biggest of all. The humps were all made by volcanoes, but picnic parties used to go up to the pretty lake in Pelée's crater. Nobody thought that Pelée was dangerous any more.

"Yet Pelée was only waiting. It began to 'smoke,' cinders fell over the island, earthquakes were felt; after two months of such activity, the clouds of ashes darkened the sky, fire played through those clouds, and boiling mud rolled out of the crater. One day the air cleared and every one thought the danger was past, but that same morning tremendous explosions were heard. A black mass of vapor rose over Pelée, and from beneath it a cloud of burning gas shot forth, rolled down the mountain-side as fast as a railroad train, and scorched the city out of existence. Only one man in St. Pierre escaped, and he was found alive a few days later in an underground cell of the jail.

"Forty thousand people lost their lives that day, and only a few miserable houses have been built to take the place of the fine old-time stores and mansions that were burned or buried in lava ash. You see that living on the edge of the volcanoes of these Antilles is not safe at all. That was the time when the Caribs were wiped out in St. Vincent. I think people are safer in the United States, aren't they?"

Reproduced by permission of the Philadelphia Commercial Museum

On a canal in Martinique. What would make you think this scene was in the tropics?

Alphonse's story is such a sad one that we want to see him happy at least. Before we say good-bye to him, Jack slips a few extra pieces of money into his hand. "Thank you, thank you," cries Alphonse. "May I be fortunate enough to see you again."

Little England.—Southeast we turn to see the last of the

Courtesy United American Lines

Transporting sugar-cane in Barbados. Why is the ox a cheaper beast for work than the horse? In what country of the world are windmills most famous? Why does not the United States make more use of windmills?

islands that we have time to visit—the last, and the farthest out in the ocean. Little Barba'dos, standing sentinel beyond its mates, is not volcanic, as are so many of the others, but is made mostly of limestone rock formed by sand from the coral reefs. Glaring white are its roads, white are its buildings; its little negro cabins stand upon corner-blocks of white limestone. Like Bermuda it seems, except that it is considerably higher.

Barbados is the oldest English colony in the world. It

was settled by the English about the time that the Pilgrims landed at Plymouth, and though the other islands of the Lesser Antilles have changed hands many times, the Union

Courtesy United American Lines

A market street in Bridgetown. Find people carrying burdens on their heads.

Jack has ever since flown over Barbados. Therefore it is often called "Little England."

Even though the sun is hot as we land at Bridgetown, the capital, a fresh breeze is blowing. The Barbadians like to say that their little island stands "in the heart of the trade-wind" and is "the sanitarium of the West Indies." Per-

haps because it is so healthful, Barbados is very thickly, even too thickly, settled. As Jack says, "It's hard to get out of sight of a house." The negro laborers who are trundling big barrels of sugar and of molasses down to the wharf seem cheerful, but perhaps that is because they have a job, and jobs are not plenty enough to go round. Therefore, many of the Barbadian negroes emigrate to other islands where they can find work, and those who stay work hard to keep their positions. It is an active island, the Barbados.

As we pass a day in the interior of Barbados we see hundreds of knowing little donkeys who are the great burden-bearers, when human hands and heads do not carry the loads. Above the donkeys as they pass along the white road stand old-fashioned windmills, whirling their long arms. This is a cheap kind of power to grind the cane. How surprised we are, too, when we can discover no running streams. The water has all sunk through the porous limestone and lies in pools below the surface. Yes, Barbados, swarming with life, has a character of its own.

When our vessel turns its bow away from shore, Fred reflects, "Well, I'm sorry to leave these almost unknown Leeward and Windward isles, with their mixture of English and French customs and language, their tropical scenery and their dangerous volcanoes. They are the Sugar Islands, sure enough, for their business is founded on fields of cane, and we might call them the Black Islands, for the sprinkling of white people is small indeed. Far away from the outside world seem these bits of tropic land."

QUESTIONS AND SUGGESTIONS

1. From the map make a list of the Lesser Antilles.
2. Which is the leeward side of Haiti?
3. What ill fortune befell Josephine after she became Empress?
4. What famous Italian cities were destroyed by a volcano?

CHAPTER XXI

ON THE GREAT MEXICAN PLATEAU

The United States South of Us.—Now we are ready to see more of the southern lands, and in a hotel of El Paso, Texas, we are packing our baggage to travel through Mexico. Jack looks up for a moment from his over-full suitcase. "Is Mexico a big country?" he inquires.

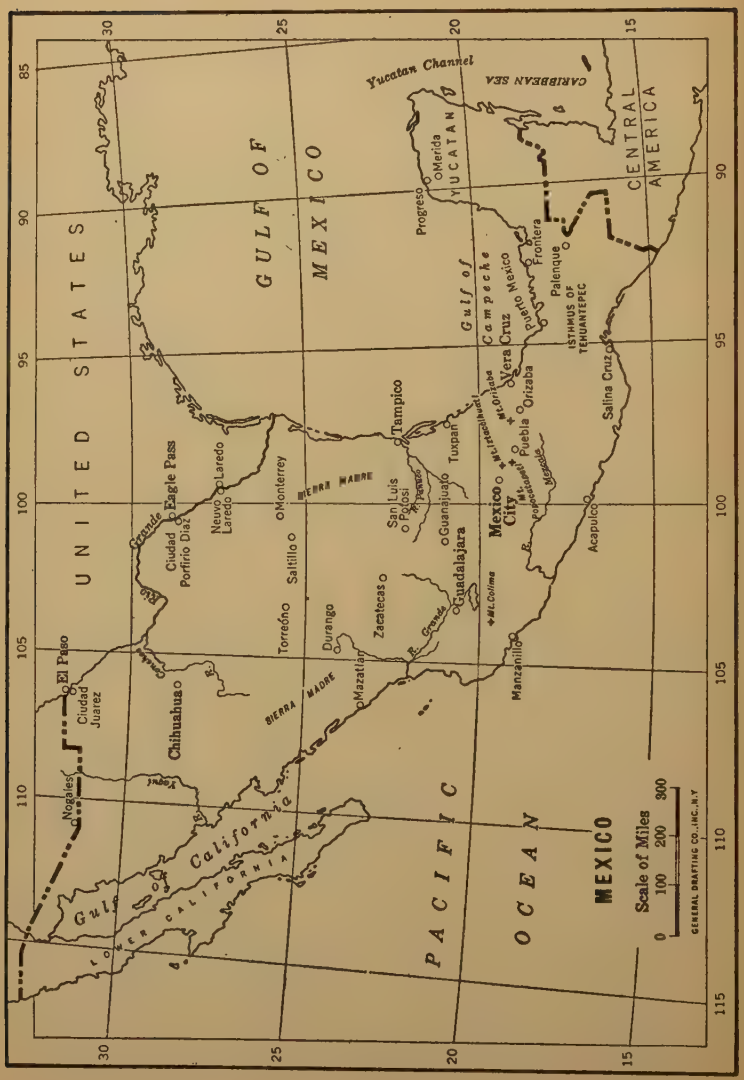
"Pretty big, I'd say," answers Fred. "It's a quarter as large as the United States, I know, even since we took half of Mexico's land away in 1848 and added it to our own."

"Mexico is big enough to have various kinds of surface and climate and so of products, too, I understand," chimes in Ruth.

"Do you know, Alice, that we're going to visit another United States?" Fred goes on, glad to display how much he knows. "Mexico is made up of states like ours, twenty-eight of them, beside a federal district like our District of Columbia. And it has a President, too, just as we have."

The Big Central Plateau.—A farewell look from our hotel windows shows us the Rio Gran'de valley marking the general boundary line of Mexico eastward from El Paso. Westward of the city, however, there is only an imaginary boundary line, and the brown, baked, dusty plains stretch right across from New Mexico and Arizona down into old Mexico.

Our motor-car passes a bridge over the shallow Rio Grande, which is not at all a grand river except in length; then we find ourselves in the little Mexican town of Ciudad Juarez (Hwa'-rez) or Juarez City, named after a great


UNITED STATES
GULF OF MEXICO
PACIFIC OCEAN
MEXICO
CENTRAL AMERICA
Yucatan Channel
CARIBBEAN SEA
Gulf of California
Lower California
Gulf of Campeche
YUCATAN
Merida
Progreso
Frontera
Palenque
Puerto Mexico
Vera Cruz
Tampico
Orizaba
Puebla
Mexico City
Acapulco
Salina Cruz
Tuxpan
Guadalajara
Manzanillo
Mazatlan
Durango
Zacatecas
Torreón
Saltillo
Monterrey
Nuevo Laredo
Laredo
Ciudad Porfirio Diaz
Eagle Pass
San Luis Potosi
Guanajuato
Chihuahua
Ciudad Juarez
El Paso
Nogales
SIERRA MADRE
ISTHMUS OF TEHUANTEPEC
Scale of Miles
0 100 200 300
GENERAL DRAFTING CO., INC., N.Y.

Mexican president who was once a poor Indian boy. Wherever a railroad line passes from the United States into Mexico, there you may see twin settlements, one on each side of the boundary, and the larger one always on the American side. Opposite Nogal'es in Arizona there is another Nogales, and opposite Eagle Pass and Lare'do in Texas there are Ciudad Porfir'io Di'az (named after another president) and Nuevo Laredo, meaning New Laredo.

Here, though it is only late February, the weather is like that of Pennsylvania in May. The sun makes it quite warm, but the breeze holds a refreshing coolness. We are on a plateau two or three hundred miles wide and seven hundred miles long, sloping gently up as we go south from the Rio Grande. The greater number of the Mexicans live on this plateau. There are so many low mountain-ranges scattered over the surface that the plateau is a network of valleys, but the level of one valley differs so little from that of its neighbor that by winding ways a carriage could easily be driven without any special highroad all the way from Texas to the city of Mexico, where the plateau ends.

On both sides of the plateau, east and west, rise mountain walls. That on the east is in the same line as the Rocky Mountains; that on the west is in the same line as the Wasatch Mountains that fringe the Great Basin of Utah. The Mexicans call these mountain walls the Eastern Sierra Madre (Mah-dray') and the Western Sierra Madre. "Madre" means "Mother," and it was probably thought that these mountains watched over the plateau as a kind mother might. From their slopes come streams of refreshing water, on their sides are noble forests and good grazing land, and in their depths lie mineral treasures, so kind mothers they are indeed.

What Grows on the Plateau?—"How dry these plains

look!" exclaim Alice and Ruth both at once, as the car gets fairly out on the journey. Yes, there has been no rain since October, and there won't be any until June. Seven or eight months of clear sky and bright sunshine make the land badly need moisture. It has a barren appearance. Here and there sprout tufts of coarse grass, enough to support cattle and sheep, but there is also much bare soil, and thorny cactus plants of many queer shapes abound. Only a few trees grow here, and those are mostly seen where some enterprising rancher pumps up water by a windmill or leads a stream to irrigate his land.

Among the scattered grass-tufts and the sprawling cactus-plants grows a spiny tree or bush, about ten feet high, the mesquite (mes-ki'-tah). It is the "lucky bush" of the plateau, for its unpromising appearance hides many virtues. The leaves, that look like those of the locust-tree, furnish nourishing fodder, and from the branches hang clusters of pods whose thin layer of sweet pulp makes them a favorite food for cattle and horses. In each pod are hard beans, and they can be ground into meal which is good for either man or beast. The people of the Hawaiian Islands make great use of the mesquite, or a cousin of the mesquite, as food for dairy cows. The wood of the mesquite, too, is hard and heavy, and answers many a need.

The soil of the plateau is fertile enough when there is a supply of water. During the short rainy season, wheat, barley, and corn spring up and ripen, and wherever irrigation allows it, alfalfa and vegetables may be seen. Yet, after all, the amount is not large and the great "haciendas" or estates are devoted mostly to raising cattle, sheep, and horses.

We Arrive at Chihuahua.—Along our way there are various small towns and little villages, bare and brown like the landscape, for the flat-roofed houses are built mainly of the earth itself, of clay or "ado'be." "I don't think I want

to live in an ugly adobe house," sniffs Alice. "Perhaps you wouldn't like the surroundings," Fred retorts, "but I heard in El Paso that an adobe house can be very comfortable. It's warm when the weather's cool and cool when the

Reproduced by permission of the Philadelphia Commercial Museum

Making adobe bricks. Where wood and stone are scarce, adobe is often used. In what part of the United States were adobe buildings very popular?

weather's hot, it's durable, and it's fireproof. Of course, I should want it to be plastered and to have a regular wooden floor and ceiling; then I think an adobe house wouldn't be bad at all."

After a somewhat tedious ride of more than two hundred miles, we approach the first big city along our route, Chihuahua (Chę-hwaw'-hwaw), nearly encircled by low ranges.

It seems like a thriving place. The hotel-clerk tells us that it has cotton-mills, woolen-mills, iron-works and smelters. "Aha! Smelters!" cries Jack. "Where are the mines?"

"I'll find some one who'll tell you all about the mines later on," promises the clerk, smiling. "Probably you'll want to see first what a Mexican city is like."

Among Plain People.—Dinner over, we leave the main streets and wander by moonlight about the sections where the "plain people" live; most of the Mexicans, according to our ideas, do live plainly and poorly. The adobe houses which line the narrow ways often have but one room, whose floor is only hard-packed earth. Dark-complexioned men lean against the door-posts or squat down upon their heels to have a chat with a group of friends. They wear big hats called sombreros, as high in the crown and as broad in the brim as they can afford to buy, and they wrap themselves in gay "sera'pes" or blankets, for the evening air has an edge.

Inside the houses, dressed in white cotton waists and blue cotton skirts, barefooted women are preparing the evening repast. They take cornmeal, make a paste of this with water, and bake it on a griddle so that it forms thin cakes. These "tortillas" (tor-teel'-yahs) have no special taste, but the Mexicans could not imagine getting along without tortillas.

Just now we see a man ready to eat. Before him stands a bowl of frijoles (free'-ho'-lees) or black beans, cooked in very strong lard and so hot with chile peppers that they would nearly burn off an American's tongue. The Mexican, though, likes this scorching seasoning, and probably it hides the taste of the ancient lard. "He hasn't any plate, fork, or spoon," whispers Alice, amazed, "but look! He's scooping up the beans with his rolled-up tortilla, and eating beans and tortilla together. That's one way to save dishes!"

Down the street comes a mother with her baby. The little one is riding in a carriage, to be sure, but the carriage is on the mother's back. With her long blue scarf or "rebo'sa" she has taken several turns around the youngster and then wrapped the rebosa securely around her own shoulders.

"Mother's arms are free, and baby seems very much at ease; I think that's a good idea," Jack remarks. "The

Courtesy Philadelphia Public Ledger

Here is a small adobe house, wood being used to strengthen the adobe. Many of the Mexican people would think this was a fine mansion.

father ought to do that with his serape." However, we see no fathers carrying babies on their backs; the men would rather play the guitar or smoke an endless number of cigarettes.

Our Visit in the Patio—Next day Señor Blanco, a well-to-do citizen, invites us to visit his home. The house is a big stone building, and we feel very important as we enter the doorway with its ornamental grating. Señor and Señora Blanco receive us in the open patio, where beautiful flowers and a sparkling fountain delight our eyes. Here, in

a comfortable chair, one may enjoy sunshine all day and moonlight or starlight at night.

"This is like camping out at home," smilingly says Ruth, as she inhales the fragrance of heliotrope and rose and looks up at the bright sky.

"Yet it is quiet and private," remarks our host. "We Mexicans like to feel that our house is our castle, and we reserve most of its attractive features for the inside."

"Please tell us about your country, Señor," asks Fred. "I don't know very much about Mexico, I find."

"Mexico is a land of open spaces," says Señor Blanco. "Your country is about twice as thickly peopled as ours. In the United States you have few Indians, but four-fifths of our people are full-blooded Indians or have considerable Indian blood. The great President Juarez himself was an Indian.

"Our people, as you know," continues the Señor, "are poor, and few of them have had any education; but they are hard-working, honest, and polite, and that should be put to their credit. If they could have better opportunity in life they would fast improve. Because the people are poor and ignorant, it is easy to deceive them, and many a bad man has gathered these 'peons' or laborers together into a small army, has called himself a general, and has tried to make himself the ruler in his own corner of the country. As railroads, telephones, telegraphs, newspapers, and especially schools multiply, these 'revolutions' will cease to occur."

QUESTIONS AND SUGGESTIONS

1. For how many miles does Mexico touch the United States?
2. Are all mountain-chains "mothers" to the land? Explain your answer.
3. What are the advantages and disadvantages of Señor Blanco's home compared with yours?
4. Make a list of the twenty-eight states of Mexico.

CHAPTER XXII

TREASURES OF THE MINE

A Beggar on a Bag of Gold.—"Now let me tell you something about our good city of Chihuahua," continues the Señor, as he sets down his cup of coffee. "It was founded about two hundred fifty years ago by some adventurers who came to find silver mines. They found what they were seeking. Although Chihuahua now does much manufacturing, it still is a centre of mining and its smelters are important. In fact, all through most of the plateau of Mexico, and the mountains bordering it, even on the sun-scorched peninsula of Lower California, rich stores of metal are hidden away in the rocks."

"More about the mines!" demands Jack, who would like to go at once on a treasure-hunt.

So Señor Blanco continues. "A famous scientist who explored our country many years ago remarked that Mexico reminded him of a beggar sitting on a bag of gold, for the people seemed so poor and the mines so rich. The copper region that you visited in Arizona continues across the border, so Mexico is an important producer of the 'red metal.' Gold is found in many places, and Lower California has its share. There are lead and tin and coal.

The Silver Mines.—"But as for silver! Mexico is the greatest silver-mining country on earth. In the four hundred years since Cortes conquered Mexico, this land has brought forth two-thirds of all the silver used by the world, and, in spite of the many regions elsewhere that are now producing silver, Mexico is still responsible for about one-third of the yearly production.

"What fortunes the old 'silver-kings' of Mexico heaped up! One man built a solid silver staircase in his big house. Another heaped a wagon with a hundred thousand silver dollars and drove about tossing them to the peons. Another offered to pave the road with silver if the viceroy or ruler of Mexico would come to make him a visit.

"Yet at what a cost of suffering the shining metal was gained! A certain nobleman worked in his mine a gang of two hundred Indians chained together, who never were allowed to come up into God's sunlight. At last, desperate by their tortures, they set fire to the timbers that held up the roof and buried themselves as it caved in. I am thankful that to-day the Americans own most of the mines and are using modern machinery to make the miner's work less hard and less dangerous."

Fascinated by the Señor's information, we decide to see something more of the silver mines; so after giving the girls a chance to spend all their money in buying the beautiful "drawn-work" done by the Mexican women, we take the train for a long trip southward. When we pass Torreon', Fred calls our attention to cotton-fields as a proof that Mexico can supply its own people with clothing; but the cotton-fields disappear as we pursue our journey, and we see barren cactus-covered plains once more.

The railroad comes nearer and nearer the Western Sierra Madre, and the train steadily climbs. At the end of a five-hundred-mile trip (distances in Mexico can be enormous) the track rises more and more steeply into the mountains, and, a mile and a half above New York, Chicago, or Philadelphia, we come to Zacate'cas, the "silver city."

Where Silver Rules.—Silver is king in Zacatecas. Too big for the narrow valley in which it began, the city has spread out and crawled up the bare hills on each side. The

flat-roofed houses of the miners look like earthen boxes. Mine-tunnels pierce the rocks in every direction. In a hundred places far in the depths of the earth, almost naked peons hammer and pick and blast away to get the ore. Some of the mines still use the old-fashioned ways that killed so many Indians.

"I wish we could go down into one of those old-fashioned mines," says Alice; but when she finds that she would have to be lowered down in a rickety bucket, or climb down a ladder made of logs with little notches cut in them, she gives up the idea. "Think of those peons coming up such a ladder, each carrying a bag of ore weighing a hundred or two hundred pounds!" Jack cries. "Excuse me, please."

Instead of going down the mines, we are taken to see how the silver is gotten from the ore in the old-fashioned way, which is still much used by the Mexicans, just as it was a hundred years ago. After the ore is crushed to a fine powder, it is thrown into a great basin with mercury and a biting chemical called copper sulphate. Around and around in this mixture plod old worn-out mules, treading it up into a pasty mass. Day after day they pursue their weary way, till after two, three, or four weeks the manager thinks that the mercury has absorbed all the silver. Then the mercury and silver combined are put into an oven, where the heat drives off the mercury while the silver remains.

Ruth, who is an earnest member of a society to prevent cruelty to animals, turns away with a shiver. "Those poor mules," she says, "their feet look so sore." Sure enough, the copper sulphate rots their hoofs, and after a time they must be killed, though first they suffer great pain. We all vote that we do not like that method of obtaining silver.

Perpetual June in Guadalajara.—Again we take the train to go southward. Our train has four classes of cars—the

Courtesy Philadelphia Public Ledger

This is a sort of Christmas tree, prized by the Mexican children. The strange forked objects are images of Judas, and are filled with firecrackers. Judas is set on fire, and when he explodes there is great joy.

Pullman sleepers, the comfortable first-class, the uncomfortable second-class, and the extremely uncomfortable third-class. In both the lower-class kinds of cars the passengers sit on plain board benches, but the third-class riders have no protection from the weather except the roof of the car. Only the peons ride in the lower-class cars. At every station Jack leaves our car and goes to watch with round eyes the peons, who seem to carry with them as much as possible of their household property. Jack thinks that in a hot climate it must be pleasant, as the peons do, to wear no stockings and only leather sandals, held to the foot by strings.

At last the conductor calls "Guadalajara!" (Wad-a-la-hah'-ra), and we arrive at the most beautiful city of Mexico. Though it came into being because of the silver mines which are numerous in the surrounding mountains, it does not look like a mining town such as Zacatecas; but it supplies many of the articles, especially heavy machinery, which the miners need.

Guadalajara is about as large as Salt Lake City, and a wealthy and progressive place it is. In spite of its many factories, we see no smoke in the air, for a great waterfall near by gives electric power for the mills and also lights the streets. "What fine streets, bordered by arched passage-ways!" exclaims Fred. "What a number of public squares and splendid buildings!"

This city is several thousand feet lower than Zacatecas, and since in Mexico the height usually determines the climate, Guadalajara has much warmer weather. In fact, the city lies just at the right elevation to have perpetual June. Even at night the air is balmy and dry. Around Guadalajara grow the products of temperate regions, but a few miles away is a canyon half a mile deep, in the bottom of which are raised

coconuts, bananas, and other tropical products to supply the city.

Sunday Sights.—On a Sunday morning we visit the pottery market. Mexicans do not use much tin-ware or granite-ware, and no aluminum dishes; they like the thick, heavy,

Courtesy Philadelphia Public Ledger

A sale in a Mexican market. Here very small quantities of articles are cheerfully sold. The buyer wears a rebosa.

clay dishes from which their great-grandfathers ate and in which their great-grandmothers cooked. The Guadalajara potters have the name of making the best pottery in Mexico.

On the ground at the market sit hundreds of peddlers, many of whom have made their own pottery and carried it into town on their backs. We see the big red jars which the water-carriers of Mexico carry on their backs, the smaller

jars that the Mexican women bear on their shoulders, and the "refrigerator" jars, through which some of the water slowly evaporates, so that it keeps the rest of the liquid delightfully cool. Some of the jars are so large that men could get inside them, as the forty thieves did in the story of Ali Baba.

In the afternoon we go to the main plaza or square. Every Mexican city has its plaza, surrounded by important buildings and with a band-stand in the middle, thus being a centre of life by day and night. A fine street leads from the Guadalajara plaza to the towered cathedral, and along this promenade drive carriages and automobiles, while people throng the sidewalks. Every one who is any one in Guadalajara goes to this street on Sunday afternoons to see his friends and to be seen by them.

Rich Guanajuato.—Now by a winding route, we reach the foot of the Eastern Sierra Madre, and there, climbing like ivy up the sides of a narrow gorge, is Guanajuato (Wah-na-wah′-to), as true a mining town as Zacatecas. Both cities are high up, so both have keen air at night, both overflow the valley where they began, and both bring back memories of the old times when Spain ruled Mexico.

Although the centre of Guanajuato is well laid out and we notice, facing the plaza, a splendid theatre bearing the name of Juarez, the streets up the hills are almost like goat-paths. One house stands almost above its neighbor in front, there are flights of steep steps everywhere, and we are almost afraid of falling from the topmost streets into the plaza below.

Here at Guanajuato is the richest streak of silver in Mexico, and almost a billion dollars' worth of silver has been taken from it. The town has many old churches, and most of them were built by mine-owners who had heaped up fortunes from the silver. One of the finest of these churches,

situated on a hill outside Guanajuato, was built by a man who once had been a poor peon, but later through his rich mine bought the title of count.

Below the city are large stamp-mills of adobe and stone that look like strong castles, for their precious silver must be

Courtesy Philadelphia Public Ledger

In the Sierra Madre, where so much silver is found.

protected from possible bandits, and in the valley below the mills the muddy little river carries the waste from the ore. For a time most of the Guanajuato mines had to close because they had been driven so deep that Mexican ways of working them were not profitable. Yet nowadays, under American methods, the mines are successful.

One more silver city is on our list, so we travel northward

until we come to clean, beautiful San Luis Potosí, almost hidden in luxuriant orchards and gardens. So productive are the mines in the adjoining mountains that the settlement took its name from wonderful Potosí in South America, whose silver mines once caused it to be the busiest and the largest city in the New World, although it was so high on the roof of the world that new-comers could not work and most of the babies died. "Some day I hope to see that marvelous old city," whispers Ruth. Perhaps she will get the chance, who knows?

Our visits to Chihuahua, Zacatecas, Guadalajara, Guanajuato, and now to San Luis Potosí have shown us what a great part silver plays in the industry of Mexico. Our own land comes second as a silver-producer, and together these two countries manage to supply most of the precious white metal of the world. Yet all metals become exhausted in time, and far more enduring riches for nations must be found in farming the soil itself.

QUESTIONS AND SUGGESTIONS

1. In Harry Franck's book, "Tramping Through Mexico," read his description of the silver mines and report to your class upon it.
2. What is the modern way of getting silver from the ore?
3. With what other minerals is silver often combined?
4. Make a graph showing how the silver production of the United States compares with that of Mexico.

CHAPTER XXIII

OVER THE TOP TO THE OIL-FIELDS

To the Edge of the Table-Land.—Back toward the United States the train bears us northward. A considerable distance from San Luis Potosí a sign along the track informs us that

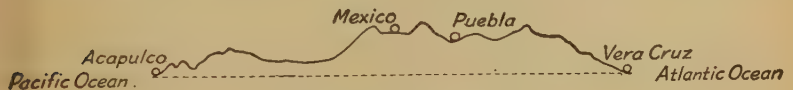
Courtesy Philadelphia Public Ledger

A hut or "jacal" on the dry and dusty Mexican plateau near the mountains. Here wood of small size happened to be fairly abundant not far away, but we cannot admire the architecture.

we have just passed the Tropic of Cancer and have gone from the torrid zone into the temperate; but, as Jack says, it is just as hot and dusty on one side of the line as on the other. Soon after "crossing the line," the train pulls into Saltillo (Salt-eel'-yo).

Saltillo stands on the edge of the "roof of Mexico," and eastward there is a decided slope toward the ocean. Fred

draws a map which he calls a cross-section of Mexico. This is the way it looks:



Cross Section of Mexico.

Here at Saltillo we are about as high as the top of Mount Washington, and the battle which General Taylor's troops fought near this place during the Mexican War with the much larger army of General Santa Anna was well named the battle of Buena Vista or "Good View." It is so high and healthy at Saltillo that rumor says people do not die here; they dry up and blow away.

Alice, who has been reading her history, says, "In this battle of Buena Vista the Americans were greatly outnumbered, and in the two days' fighting Santa Anna had them beaten several times, but they didn't know it, so they won at last. Wouldn't Washington have liked to hear that story?"

Monterrey Manufacturing.—Sliding over the edge of the plateau, as Jack puts it, the train begins descending to Monterrey (Mon-ter-ray').* In the seventy miles between Saltillo and Monterrey we go down thirty-five hundred feet, so that the climate becomes considerably warmer. Monterrey strikes us as a busy, bustling city, with many tokens of American enterprise about it. A number of shops display signs both in Spanish and English, and we see a number of Americans in the streets and in the good trolley-cars. Brick and concrete buildings have in many places taken the place of adobe and plaster structures.

Monterrey, in fact, has become the manufacturing centre

* Books published in the United States usually spell this name incorrectly "Monterey," since our California city spells its name thus.

of northern Mexico, principally because it can get coal from fields not far away. There are smelters for the silver that is found even in this region; there are iron-works and flour-mills. "Monterrey" and "Montreal" mean about the same; what is the meaning?

Before we leave Monterrey we take a look at its great steel plant. "Where do they get the iron-ore?" inquires thoughtful Fred. It comes from the western side of the plateau, at Durango. When the Spaniards were conquering Mexico, a cavalier named Juan de Mercado heard from the natives that near Durango was a marvelous hill of silver. What was Mercado's surprise when, after many hardships, he reached the hill, only to find it was made of iron, for which he had no use! To-day, however, this Cerro de Mercado, or Mercado Hill, furnishes most of the material for Monterrey steel.

Down to the Sea.—In order to have a more pleasant route, we return to San Luis Potosí; and now our way leads us slantingly downward along the eastward slope of Mexico, toward the sea. As we descend, the climate grows warmer and warmer. We see haciendas in fine farming districts, where herds of cattle feed on the coarse but abundant Para′ grass, ever green. Unlike the dry plateau, this slope has many streams, which tumble or ripple through plantations of coffee, oranges, and limes, then, lower down, through fields of bananas and sugar-cane. White waterfalls delight our eyes, and from the tops of the palms and the bamboos our train scares out thousands of parrots. The huts of the peons are not made of adobe here, but of bamboo, roofed with palm-leaves; some of them would make good dog-kennels, and some would be useful chicken-houses. "This is my idea of real tropical country," observes Ruth.

At last, from thick forests of the most expensive woods,

Courtesy Alfred Gary White

Monterrey. The city is surrounded by gardens and orchards. In the background is seen the mountain called the "Silla" or saddle.

dark ebony, fragrant rosewood, and beautiful mahogany, the track breaks out into clearings, and off in the distance derricks show against the sky. We have reached the oil-lands that have brought immense riches to so many Mexicans and Americans during the past few years. Soon we alight at the oil-crazy city of Tampico.

Tampico and Its Oil Fountains.—Tampico was one of the cities begun in the time of Cortes, but after a considerable life as a city, it was destroyed by a pirate. This was in the year that saw the founding of Philadelphia; and for one hundred forty years the spot lay deserted. Now, however, Tampico is as large as Elizabeth, New Jersey.

Here the broad Panu'co River makes a safe harbor with deep water. Tampico is seven miles up the river, so no storm can hurt the vessels that come to its wharves—and the ships come by the hundreds, for around Tampico is oil, oil, oil. Of course, people had known centuries ago that oil lay beneath the ground here; indeed, the Aztecs had burned upon their altars some of the sticky stuff found where oil oozed out.

In 1901 the first "gusher" was struck near Tampico, and a few years later Mexico took a place among the great oil countries. Its wells surprised the world because they poured out such floods of the dark, greasy stuff.

"Yes," Ruth exclaims, "I was reading in a Tampico paper about the greatest wells on earth that were struck here in Mexico. The first was pouring out seventy-five thousand barrels of oil daily, but almost at once it caught fire, and a fountain of flame mounted a thousand feet into the air. Vessels a hundred miles out at a sea noticed the pillar of light, and at night people fifteen miles away could read a newspaper by its glare."

"Goodness, gracious!" says Alice. "It's almost too much to believe."

"It's true, all the same," answers Ruth. "That was the biggest well known up to that time, and in the two months before the fire was put out, three million dollars' worth of oil was burned up. Not long afterward, near Tuxpam, along the coast to the south, another well was 'brought in' that for some time delivered more than twice as much oil as the

Reproduced by permission of the Philadelphia Commercial Museum

A Mexican family enjoying outdoor life. Notice the pottery dishes. The mother is baking tortillas while the daughter prepares the corn by crushing it with a stone roller.

first I mentioned. A mist of oil filled the air around it, and thousands of cattle died because they couldn't or wouldn't drink the oil-covered water of the neighboring pools and streams."

Busy Times.—"You didn't see that in a Tampico paper," cries Jack with a shout of glee. "You can't read enough Spanish, you know you can't."

"This was a paper published in English, silly," proudly returns Ruth. "Don't you know that so many Americans

have come here that Tampico is very much like a city of the United States? It has tall office buildings, modern hotels, and things are done in an American business way. You don't need to know much Spanish here."

Tank steamers under many flags are lying at the river-front of Tampico to take on cargoes of oil from the refineries. A big ship can be loaded in a single day. A great deal of the oil is taken out also by tank-cars, which take their oil from loading-tanks to which the oil is pumped. Though the refineries are busy, most of the oil sent out is in the crude state. The Mexican locomotives generally burn fuel-oil instead of coal, and get much better results.

From the oil-fields along the Panuco River, steamers bring down to Tampico steel barges loaded with the precious liquid, while a river of oil is being sent through pipe-lines from the same field. The oil region extends south along the coast to Tuxpam. Because the flat coast below Tampico offers little chance for a harbor, pipes have been laid on the bottom of the sea a mile or two out from shore. A tank steamer comes along, ties up at a little loading-station away out in the water, takes the flexible hose which hangs there, couples it up to her own tanks, turns a valve, and hey, presto, the oil pours into her hold.

America is Interested.—Where does most of this Mexican oil go? Where, but to the United States? Uncle Sam is the greatest oil-man on earth. Two-thirds of the world's oil comes from our wells, but we need it all and more, too—and Mexico's contribution gives us enough to run our own motor-cars and other machines, and to export a considerable amount of the products from our refineries.

The machinery at the wells all comes from Uncle Sam, and every successful well that has been drilled was drilled by an American. Americans own two-thirds of the petroleum

that is being produced. Is it any wonder that we are interested in Mexican oil? We get it out of the ground, we own most of it and we use it. Though many of the wells have been exhausted the field is large, and we expect that it will continue to produce abundantly for many years.

QUESTIONS AND SUGGESTIONS

1. What point of the United States is nearest to the Torrid Zone?
2. Monterrey has been called "the Mexican Pittsburgh." Why?
3. How is a burning oil-well put out?
4. Draw an oil-map of Mexico.

CHAPTER XXIV

ENTERING MEXICO'S FRONT DOOR

A Voyage to Vera Cruz.—On a small steamer we voyage from Tampico southward. Unfortunately, as it is the end of March, the season of the gales called "northers" has not yet passed, and we sail just in time to have a stormy experience. Sea and sky, instead of being blue, turn dull gray; the cold wind howls, and big waves toss our boat about. Ruth and Alice stay in their berths, but restless Jack tries to slip out on deck whenever he can escape the eye of the officer who keeps the passengers safely indoors. Few people seem to enjoy their meals on the tossing vessel. However, as the stormy season is coming to an end (it lasts from November to March) the "norther" lasts only two days instead of two weeks; yet we are delighted when the returning sunshine shows us our port of Vera Cruz.

There is nothing imposing about this old city, for the shore is a plain with few trees to relieve the flat effect. Vera Cruz borders the beach for about two miles, and an ancient fort on a rocky island offshore tries to guard the place. This fort has twice fallen into the hands of our fleet, once during the Mexican War, in 1847, and again in 1914, when it received a good scrubbing, which it sadly needed. In former days, travelers always spoke of the danger of landing at Vera Cruz, because of the shoals, reefs, and surf; but now ships discharge passengers and cargo in perfect safety, behind stone breakwaters.

"Have you anything interesting to tell us about this place, Fred?" asks Jack, who has great respect for his brother's information.

"Well," answers Fred slowly, "you might remember that Cortes founded the city, so it's pretty old. He called it Villa Rica de la Vera Cruz—the rich city of the true cross. How those Spaniards did love long names! He destroyed his ships here so his men couldn't run away, then marched on to conquer Mexico. Ever since that time Vera Cruz has

Reproduced by permission of the Philadelphia Commercial Museum
Vera Cruz. The old fort of San Juan de Ulua is seen in the harbor.

been the front door of this country. When we came in at Juarez, we came through the side door. Although Tampico is visited by more ships, Vera Cruz does a great part of the general trading for Mexico. But let's go ashore."

In Street and on Dock.—"How quiet the city is!" remarks Ruth, as we begin walking through the narrow streets in the early afternoon. "It can't be a very large place."

"It's a good-sized community," answers Fred, laughing. "It's about as big as Peoria, or Harrisburg, or San Diego; but you must remember that the Mexicans have a habit of

taking a 'siesta,' that is, an afternoon nap. The city won't really wake up until five o'clock. Let's go to the plaza, sit under the arches they call 'portal'es,' and have a cold drink. Now that the norther is over, this sun is certainly hot."

After the sun has neared its horizon, we stroll down again toward the docks, through the narrow streets with their houses whose plaster covering is painted in many colors. On our way we pass the market, and there, along the edge of the roof, sit a row of awkward black birds with ugly red heads like those of turkeys. "What are these?" promptly asks Alice.

"Those are black vultures; in our country we'd call them turkey-buzzards," comes Fred's answer. "Once upon a time, not very long ago, these were the chief street-cleaners of Vera Cruz. Naturally such dirty streets were fine for causing disease, and back of the town was swampy land where yellow fever mosquitoes bred. Now the streets have been cleaned up, some of the swamps have been drained, and instead of hurrying away from the town, the traveler may stay in Vera Cruz with perfect safety. Although the buzzards don't get such good pickings as they used to, they still get enough to eat around the market or from the open garbage-carts that pass through the city."

Keeping on to the docks, we take a little tour of observation there, to note what things Mexico is sending out to the United States. Alice keeps a list. She sees bars of silver, bars of copper, bars of lead. She sees bales of cotton and bags of coffee. She notices logs of dyewood and logs of "cabinet-wood" used for fine furniture; and she counts many bundles of hides. "Yes, Vera Cruz has a very interesting lot of exports," Alice concludes.

Sweet-smelling Vine-Pods.—Our train from Vera Cruz rumbles along for awhile over the flat coast plain, passing

sandy waste, snaky swamp, and patches of dense woods. It isn't an especially interesting view, so at the station we watch to see which Mexican wears the biggest straw sombrero. Ruth decides that the prize should go to one with a crown about two feet high and a brim in proportion. The peon who wears it could easily put into his hat all his other clothes except his serape.

Now we begin again to climb up the slopes toward the central plateau. The forest clothes these hills. There are plantations of banana-trees and coconut palms. Many of the forest trees are covered with clinging vines like the ropes of an old-fashioned sailing-ship. "See that man with the basket of long bean-pods," says Jack, as he leans out of the window at a station. "He's broken one. Oh, my, how good it smells! Why, why—I ought to know that smell! Is it vanilla?"

Sure enough, those are vanilla beans, for they have been brought from a vanilla plantation near by. In a few sentences, the friendly man tells us about vanilla raising. The "beans" come from a sort of vine that climbs up trees if given half a chance, and as vanilla needs shade, it is encouraged to climb. It needs moisture, too, but the winds from the Atlantic drop plenty of rain on the eastward slope of Mexico. After the greenish-yellow blossoms come, the pods develop. In March or April they are picked, dried slowly, then "sweated" to bring out the flavor which we like in ice-cream, soda-water, or puddings. Much wild vanilla is also gathered.

A little above the best vanilla plantations lie the coffee plantations. We are used to thinking of coffee as a tropical product, but it is really "sub-tropical" or near-tropical, for it grows best at an elevation above the steamy jungles. The home of the coffee-planter, therefore, is nearly always in a

Reproduced by permission of the Philadelphia Commercial Museum

A vanilla vine. Chemists have produced artificial vanilla flavor, but it is not so good as that obtained from the real pods.

pleasant situation as far as climate is concerned. Mexico produces a considerable amount of coffee.

The Town and the Peak.—Climbing, climbing, climbing, we come into a beautiful valley in which stands the town of Orizaba (O-rih-zah'-ba), with busy cotton-mills. "I can see the reason for having many cotton-mills in Mexico," says Ruth, thoughtfully. "Most of the people dress in cotton."

It's quite warm at Orizaba, even the nights being balmy, and the floor of the large valley is partly taken up by green plantations of sugar-cane. "The name of Orizaba reminds me of some mountain," says Fred. "Yes," answers a gentleman we have met, "it is, as you Americans say, some mountain. I invite you to a horseback ride with me to-morrow morning. Then we shall see what we shall see."

Early next morning, before the heat of the day comes on, the horses are at the door of the hotel, and off we all ride. "We must pass beyond the near-by ranges before we can stop," announces our friend. Past the fields of sugar-cane and tobacco that rival those of Cuba we canter on, through a valley which divides the hills, and out to a plain beyond. "There! there!" says our leader, pointing.

Up against the sky rises a true peak, capped with silver. "That's Mount Orizaba," we hear, "the highest peak of Mexico, three and a half miles in elevation. It's beautifully cone-like, because it's a fairly young volcano, and sulphurous vapors still rise from crevices in its crater. If the weather had been favorable on our voyage down the coast, you could have seen the snowy peak seemingly hanging like a star in the air. Out in the Gulf it has been seen from two hundred miles away. You will be glad to know that the first persons who ever climbed to the top of Orizaba were two

young American officers from General Scott's army, at the time of the Mexican War."

Up and Down to Puebla.—As the train leaves Orizaba town, it begins to climb again. Although we have ascended four thousand feet above the sea, we must rise four thousand more before we can look down into the central plateau-basin of Mexico. A gorge through which rushes a cascading river leads us up through the damp tropical growth until we reach the summit of the pass, at a height of eight thousand feet.

Now the scenery changes. Instead of the moist climate of the eastern slope, we have once more the dry climate of the plateau. Leaning out from the slowly descending car, we see on all sides dusty, dreary land, with scarce a tree to break the view. Winter is ending, and after a while rains will come; meanwhile, the only real green we can spy is where there is irrigation. We're all glad when our train rolls into Puebla.

The old name of Puebla was Puebla de los Angeles, which any Californian will at once translate as "City of the Angels." This is the story of that title. During the first years of the Spaniards in Mexico a good Franciscan brother had a dream. In his vision he saw a plain overlooked by two snowy mountains, and on this plain angels were measuring and marking off the ground as if a settlement were to be laid out. To the Franciscan friar this was a heavenly sign that could not be neglected. He knew the two snowy mountains, and, searching in their neighborhood, he found a plain which looked like that of his dream. Here was built Puebla de los Angeles, which is to-day a city as large as Duluth.

Puebla citizens are agreed that their city is the cleanest and finest in Mexico. Certainly it is the cleanest, and is pro-

gressive and attractive, too. Big cotton-mills get their power from a neighboring river, and the clanging of bells morning, noon, and night tell us that there are many churches. The domes of some of the sixty churches and the fronts of many of the houses are covered with beautiful glazed tiles, as the thoughtful Franciscans sent to Spain for an expert potter, who taught the Pueblans his art.

The church was supreme in Puebla. At one time, not so many years ago, four-fifths of the property of the city belonged to religious bodies. We go into the big cathedral, which almost dazzles us with the glitter and glare of the gold so lavishly spread over its furnishings. "What's this beautiful stone that is used for the high altar and the pulpit?" inquires Alice. "I'm sure I have seen it in the hallways of fine buildings at home." It proves to be a sort of marble called Mexican on'yx, of various colors, banded, clouded, and veined in a most attractive way. The United States uses a great deal of it.

No Heat!—Though we have descended a thousand feet into Puebla, the city is still so high in elevation that it is very cold at night. The people almost desert the streets after sunset, and we need a pile of thick blankets to keep us warm in bed. "Why don't they start the heating system in this hotel?" is Jack's question, as he begins to look about for the radiators.

"We don't heat our houses," comes the answer. "Of course, the cooking is done over pots or basins of charcoal, and once in a while, if it gets too cold, we sit around these; but as for heating a whole house, oh, no! In the morning the sun will shine, then we go out and stand against a sunny wall until the chill goes away from the air, which it does about nine or ten o'clock."

"That doesn't suit me at all," decides Jack.

Popo and Iz.—In the clear cold air of the next morning, Orizaba's peak, a hundred miles from us, shows up plainly. Near at hand, however, loom up the two shining snow mountains of the Franciscan's dream, Popo'catapet'l and Iztaccihuatl (Iz-tak-si-what'-l). "Oh, what names!" Ruth says with a groan. "Please call them Popo and Iz."

Reproduced by permission of the Philadelphia Commercial Museum

A "mestiza" or part Indian girl of Mexico. She, like almost all Mexicans, loves music. Do you know the Spanish song of "La Paloma"?

They are a great pair. Popo is a true volcano, and a mass of volcanic rock composes Iz. According to the Indians, Popo is the man, and Iz, near by, his wife. As befits the man, Popo is the taller. Popo was a god, and fell in love with beautiful Iz; but after a time he grew fearfully jealous and changed her into a mountain. Then he froze, too, deprived of her love, and in frigid stillness he keeps her company. Popo is next in height, among the Mexican peaks, to Orizaba.

"Iztaccihuatl," properly enough, means "The White Woman." "I can see her!" cry Alice and Jack both at once. "See her head! There's her body! And even her

knees and her feet. There she is, stretched out in her white robe on top of the mountain!" And so it does appear.

Popo's heart is still warm, and once in a while he grumbles and shakes the ground. From holes in the bottom of the pit which is his crater, a mile wide and a thousand feet deep, hot sulphur comes oozing up forever. Thus the whole crater-floor is a bed of sulphur, no one knows how thick. When Cortes was conquering Mexico his powder ran low, so he sent his trusty artilleryman, Diego Ordaz, to get sulphur from Popo to make a fresh supply.

Ever since that time, Indians have been filling bags with the sulphur, carrying the bags up to the rim of the crater, and then sliding with them down over the hard snow to cars waiting below. If the world outside of Mexico wanted Popo's sulphur, he could give it an enormous supply; but there is plenty of sulphur elsewhere for the world's needs. As for the United States, our sulphur deposits in Texas and Louisiana will be enough to satisfy us during many years to come.

QUESTIONS AND SUGGESTIONS

1. What adventures did Cortes have at Vera Cruz?
2. Is the Mexican "siesta" a good idea? Why?
3. Make a list of flavorings which we get from the tropics.
4. Write an imaginary description of the experiences of the two young American officers in climbing Mount Orizaba.
5. In which one of our states is the life of the old Franciscan friars best remembered? Why?

CHAPTER XXV

THE EYE OF MEXICO

The Big Agaves.—"We're off for Mexico City!" shouts Jack, who can hardly wait till the train starts. When we have left Puebla behind, however, even Jack could not call the scenery attractive. Rows upon rows of enormous spiky-leaved plants cover great patches of the plains, however. "I never saw plants like these," Ruth remarks.

"Oh, yes, you have, I'm sure," says Fred quickly. "At home Mr. Cooke has a century-plant in his front yard. The botanists call it an agave (à-gah'-vee). These maguey (mah-gwy') plants are agaves, but larger than those we have in the United States."

"Do century-plants bloom only once in a hundred years? That's what old Mrs. Martin told me," cries Alice, eager to add her bit to the conversation.

"Nonsense, Alice," Fred answers. "That's just an ignorant idea. Some kinds flower every year, some every few years, while some others bloom only once and then die. Please don't believe all you hear."

A broad-hatted peon is standing beside one of the plants, and looks small, for the leaves, several inches thick, spread out or tower into the air for ten, twelve, or fifteen feet. "Ugh, these maguey plants look snaky to me," says Ruth, with a shiver. "What do they raise so many for anyhow?"

"For cider, Ruth," is Fred's reply.

"Aren't you smart?" responds Ruth. "But I know better. Cider comes from apples, thank you very much."

Fred smiles in a superior way. "Well, it's just the same

as cider to the Mexicans," says he. "I'll tell you, for I learned all about it in Puebla.

Pulque Curses the Peon.—"These magueys," continues Fred, "will flower in six to ten years; but just before they start to send up a stalk of bell-shaped white blossoms, the peons cut out the heart of each plant. The sweet sap, of

Reproduced by permission of the Philadelphia Commerical Museum

Getting "agua de miel" from the maguey. The gatherer usually sucks up the sap into a skin, then empties it into larger skins.

course, collects in this hollow, and is drawn off at the rate of several quarts a day for a month or so. The natives call it 'agua de miel' or honey-water. Then the sap is allowed to ferment, like cider, and is partly turned to alcohol, and is then called 'pulque' (pool'-kay). Here's a station. Let's see if we can get some pulque at the refreshment-stand."

Sure enough, indeed, the brown-skinned Mexican has a big jar of pulque and gives each of the young travelers a

glassful. In three seconds there are three disgusted faces. "Sour ginger ale!" cries Jack. "Stale buttermilk!" exclaims Alice. "No more for me!" adds Ruth. Only Fred, perhaps to be contrary, pretends to think it isn't so bad.

"In a day," says Fred, "this pulque will smell so terrible that you could hardly stand it, and it's not supposed to be sold after it gets to that stage. The peons love it, though, at any time. For a hundred miles around Mexico City there are vast plantations of maguey, and train-loads of pulque are sent into the city daily, just as we receive milk. Some persons will tell you that pulque doesn't contain enough alcohol to be hurtful, but it's really a curse to Mexico. Those parts where the maguey won't grow are much better off."

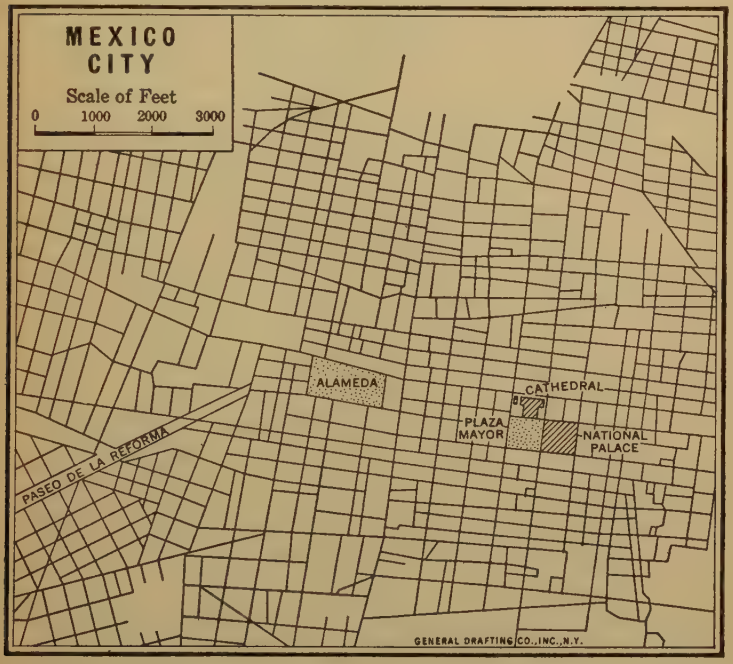
Before long we arrive at the station of Mexico City, capital of the republic, also its largest city, having close to a million people. Mexico City is modern in many ways. There are plenty of trolley-cars, and a swarm of automobiles whiz along under the blazing electric lights on the fine streets with their high-priced and attractive stores.

Our first excursion is to the big square, the Plaza Mayor', which forms the centre of the city. On it stands the National Palace, where lives the President, and where are many public offices, as well as the public treasury. Above the main entrance of the Palace we see a balcony, and on the balcony there hangs a bell—it is the Liberty Bell of Mexico, the bell which first rang in 1810 to call the Mexicans to be independent of Spain. At midnight on the fifteenth of September each year the President steps out on the balcony and sounds the bell. It is a worth-while custom.

Below and Beyond.—Across the tree-planted square, opposite the National Palace, towers up the great Cathedral, largest in North America. "Let's go up and get a view of the city," proposes Alice; so we climb a wearily winding

stair in the two-hundred-foot-high tower, until we can look far down and far away.

Below us spreads the chess-board of streets, many of them broad and up to date. The brick-paved roofs of the houses seem mostly on a level, for sky-scrapers are unknown



and tall buildings are few. "I miss the chimneys," Ruth observes, as she looks over the general flatness. When there are no furnaces or fireplaces (and Mexico has very few) no chimneys are needed. A hundred churches, however, send up their towers and domes to break the level.

What a beautiful view meets our eyes as we look beyond the city! It lies in a valley, fifty or sixty miles long, thirty

The Zocalo: City of Mexico.

or forty miles wide, mountains closing it in. In this Valley of Anahuac (An-a-hwac′) gleam several lakes among the green of the fields. Off in the distance rise Popo and Iz, and over the saddle between them Cortes and his men came marching to conquer the great city of the Aztecs.

When Cortes first saw the city it lay in the embrace of one of the shallow lakes, and the only roads to it passed over causeways. Many a Spaniard found his grave at the bottom of the lake before Mexico was conquered. But after Mexico became Spanish, dwellers in the city grew tired of having their first floors invaded by a flood every once in a while, so they partly drained off the water, and the shore of Lake Texco′co is now some distance outside Mexico City.

Stones of the Aztecs.—It's time to go down again to the Plaza Mayor or Plaza de la Constitucion′. While we have the old Aztecs in mind, let's stroll over to the National Museum, which is housed in one of the wings of the National Palace. "I could spend a long time here," says Ruth, gazing around. "Look at those weapons and costumes of the Aztecs and the Spaniards! See that portrait of Cortes and the Aztec picture-writings! And those horrible idols!"

Near the entrance of the Museum rests an enormous circular stone, its top covered with carvings; it is supposed to be the bloody Stone of Sacrifice. On the spot where the Cathedral now stands was the great Aztec temple or teocal′li, in shape of a pyramid. In the centre of the pyramid's flat top was this butchering-stone. How many victims were stretched on this stone to have their hearts torn out by the Aztec priests, no one can say—certainly hundreds of thousands suffered that fate. From his palace, where now is the National Palace, Montezuma could watch the fearful ceremonies.

By the Stone of Sacrifice still watches the hideous statue

of the War-God in whose honor flowed so much blood and perished so many human beings. Huit-zil-o-pocht'-li is far from handsome. He seems to have four noses, his mouth is wide enough to swallow a man, he has snake's teeth, wears a necklace of snake's heads, and holds between his hands a skull. "Really, he might be a gnome or a troll," Alice observes, "but never any gnome or troll called forth such slaughter."

Gladly we pass on to another great circular stone, twelve feet across, weighing twenty-seven tons. This is the Calendar Stone, and, though scientists cannot decipher the meaning of all its carvings, we know that the Aztec priests were well acquainted with the movements of the earth, sun, and moon, and so could measure the hours, the days, and the years with exactness.

High and Cool.—As night comes on the air becomes quite chilly. The peons seem to feel it greatly; they draw their serapes around their mouths and noses in order to warm this evening atmosphere before they take it in. Though the city lies well below the Tropic of Cancer it is so high above sea-level, nearly 8000 feet, that the climate doesn't seem at all torrid.

When we walk in the bright sunshine it seems too hot, but as soon as we step across to the shady side of the street there is a sharpness which makes us shiver. There are sudden changes in temperature, too, which Mexico City experiences almost as often as does Chicago, though not to the same amount. These changes, however, keep people active. In a word, we may say that Mexico City has a temperate climate. Many places in the tropics are thus favored by being high up. For a while Ruth and Alice feel slightly light-headed because the air is thinner than that to which they are accustomed, but the dizziness passes off.

Reproduced by permission of the Philadelphia Commercial Museum

Interior of the cathedral in Mexico City. The decorations of the great building are exceedingly rich.

Chapultepec Castle.—"Your car is ready, señor," says the brown chauffeur. We pile in, and off we glide, past the National Palace, from whose doorway the President's car is just moving away. Here is the pretty little park called the Alame'da, a name that reminds Fred at once of the Alamo in San Antonio. This Alameda was once planted with "alamos" or cottonwood poplars, which gave the place that name. And here is the Paseo (Pah-say'-o) de la Reforma, bordered with double lines of tall eucalyptus trees that are shedding their bark as fast as they can.

This "Boulevard of Reform" is a wonderful street, one of the finest in the world. On both sides are beautiful beds of flowers and through the ranks of trees we view magnificent homes set in fine gardens. At intervals along the boulevard are circles in which stand statues of men famous at least in Mexico. The chauffeur slows up so that we can recognize Columbus, and there is also a statue of the last of the Aztec kings, who was tortured and finally executed by the Spaniards of Cortes. He never told, however, where Montezuma's gold was hidden.

Along this Paseo, nearly three miles long, the fashionable people of Mexico City like to drive. At the far end we come to the Castle of Chapul'tepec, terraces of white marble up a steep hill, and at the top the vast building, taking up as much ground as our Capitol in Washington. A Spanish viceroy, ruler in place of the king, began it before there was such a country as the United States. Now it is the summer home of the Mexican President, though he lives only in a part of it.

In the opposite wing of the castle to that which has the presidential apartment, is the West Point of Mexico, the military college of the nation. The cadets look just as trim as ours, although they are not so husky. In 1847, when the American army reached Mexico City, many of the young

cadets of Chapultepec fell on their " home grounds," fighting bravely against the invaders. All honor to the gallant boy soldiers!

Around the rock and the palace is a park, a thousand acres in extent. As we drive through it our road seems to burrow beneath great cypress-trees that twine their limbs together to cast dense shade. " Ah, we're in Florida now," bursts out Jack. " Yes, look at the Spanish moss hanging from those branches. It's very appropriate here."

Not far from Chapultepec is the bull-ring where the Mexicans delight to go on Sunday afternoons. It is hard to tell whether buying lottery tickets or going to the bull-fight is more popular. Twenty thousand people sit in the stands as the band strikes up a lively tune and the procession of bull-fighters marches into the ring. There are the marshals with fine horses and plumed hats, and the much-admired tore'ros or real bull-fighters, in short gold-braided jackets, gayly colored satin breeches, and pink silk stockings. Behind them walk their assistants, the banderille'ros or dart-men, and then the pic'adors or lance-men, who are mounted on old horses that have grown almost unfit for work. At the end come a couple of groups of men, each with a team of mules to drag out dead bulls and dead horses.

A bugle sounds, and a bull rushes out into the ring. For a moment he stands to get his bearings, then, seeing a banderillero waving a red cloak, he hurls himself at the man, all in vain. From one cloak-waver to another he turns, until, bewildered, he shakes his head and pauses a while. Now the banderilleros approach and plant their barbed steel darts in his shoulders like arrows. The blood flows fast down his chest.

On his poor old horse a picador rides up to the bull, turns the side of the wretched animal toward the bull and waits for the bull to gore the steed. As the sharp horns pierce the

horse's stomach the picador thrusts his lance into the bull's neck. If the horse falls, the picador may be thrown to the ground also, but his costume is heavily padded to prevent him from being injured. Another horse is treated in the same way, and yet another. One dies and is dragged away, the others, desperately wounded, stagger out of the arena.

It is time to finish the bleeding, foaming bull. Out steps the torero with his red cloak in one hand. First he must show how agile he is. A flirt of the cloak makes the bull rush at him; by a step to one side or merely a turn of the body the torero avoids the charge. Such play becomes too tame; at the next charge he actually blindfolds the animal. Soon, taking his long straight sword, he approaches the bull, who watches him sullenly. As the bull lowers his head to attack again, the sword drives down between the shoulder blades, and the great bull falls upon his knees, then rolls over dead. A mighty roar goes up from the benches.

Five more bulls are tortured to give the people an afternoon's sport, and a dozen more horses pay the price. Occasionally in the bull-fights a torero or one of his assistants is gored, and perhaps that adds to the pleasure of the spectators. "Don't you like the bull-fight?" inquires one of our Mexican friends. "It's not any worse than your foot-ball."

"Have it your own way," answers Fred bluntly, "but to my mind it's cruel, bloody work, and will make the people who enjoy it cruel too."

QUESTIONS AND SUGGESTIONS

1. Read the story of Cortes' conquest of the city of Mexico.
2. In what ways were the old Aztecs civilized? In what ways were they uncivilized?
3. Mexico has no school like our Naval Academy. Why not?
4. Who is the president of Mexico at the present time? How long has he held the office?
5. "The Conquerors of Mexico," by Henry Gilbert, tells about the hairbreadth adventures of Cortes and his men.

CHAPTER XXVI

ISTHMUS, TEMPLE, AND HENEQUEN

Señor Perez is Surprised.—" I'm sorry we aren't going to the west coast of Mexico," bursts out Jack, one day. " What can we do about it? "

" Next to seeing is hearing," rejoins one of our friends. " Señor Per'ez, who is staying at this hotel just now, knows the Pacific coast well. I will introduce him."

At dinner that night polite Señor Perez gives us the benefit of his experience. " I think the western coast is better than the eastern," says he. " It's not so rainy, yet it's warm, and people can live there more comfortably. Unfortunately, the mountains shut it off from the rest of our country and from the United States. Lower California, that great peninsula, doesn't amount to much, for it's terribly dry, but the strip of shore along the Pacific side of the Sierra Madre is rich enough and interesting enough for me."

" There aren't any good harbors on the west coast, are there? " queries Fred.

" Oh, my dear sir! " exclaims Señor Perez, waving his hands reproachfully, while Fred turns red at his mistake. " What an idea! Let me tell you.

Three Western Ports.—" First I must say," continues the Señor, " that on the flat east coast, unless, as at Tampico and Tuxpam, you go up some river, you cannot find a good natural port. The storm winds mostly blow from the north and east, and for hundreds of years Vera Cruz harbor, as you know, was exceedingly dangerous. Where are the other good ports near there? There are none.

"But how is it on the Pacific side? There the hills come down to the sea, and there are many good harbors. It is not that harbors are lacking, but that commerce is small. There's Acapul'co, for instance; the name in Latin means beautiful water. It would be hard to find a finer bay. Once Acapulco was the western port for the City of Mexico just as Vera Cruz was the eastern. Galleons went out from Acapulco to the Philippines, to the East Indies, to China and Japan, and came back with rich freight. But when the railroad came into Mexico, Acapulco was left in the cold, as you Americans say, and somehow no railroad has ever gotten there yet.

"The railroad, however, went west from Mexico City, and, passing the volcano of Coli'ma, which smokes forever, came down to the beautiful bay where stands Manzanil'lo; but Manzanillo has never grown to be much of a place, because it hasn't much 'back-country' to trade with and the ships from Eastern Asia come into the United States now instead of Mexico. To find the most worth-while of these ports you must go farther north still, and almost on the Tropic of Cancer you will find Mazatlan'.

"You'll see that Mazatlan is just opposite the end of Lower California, so that ships don't have to leave the open sea and go up into the Gulf, then return on their track. Mazatlan has silver, lead, and copper to export, as well as some fine pearls from the Gulf of California; but the supplies that come in from the United States for the mines are worth much more than the products she sends out.

"Yes," concludes Señor Perez, "I suppose these three ports will not amount to a great deal in the commerce of the world, but at least they are there ready for use."

"Thank you very much, Señor," says Fred, "for letting the light in on my ignorance. I'll remember what you've said."

On the Isthmus.—Next morning we start off on a journey southward from Mexico City, past damp, moist Orizaba town again. As the train descends past coffee-plantations and orange-groves the air grows heavier and heavier, and we feel lazier and lazier. Banana-leaves form the roofs of the little cabins. Sugar-cane grows like corn, and corn shoots up as high as cane. From jungle we pass over sun-drenched prairie, delightful for cattle. The breath of the Gulf of Mexico reaches inland and makes coconut palms vigorous, as we come at last, after a day's ride, to the Isthmus of Tehuan'tepec.

This isthmus is at the little end of the cornucopia that is the shape of Mexico. Here the sea on the east is not much more than a hundred miles from the western sea. Once it was thought that a canal should be dug through the isthmus, for the mountains sink down here, but a railroad was built instead. At the Pacific end of the road is Sali'na Cruz, at the other end Puerto Mexico, and both of these do considerable business. This route between San Francisco and New York is twelve hundred miles nearer than the route by the Panama Canal, but of course there is the trouble of unloading cargoes and loading them again.

Until the railroad came, the people of the Isthmus were shut off from the world, but they enjoyed life none the less. Happy, comfortable, and simple in their tastes, they are attractive people. Though the Mexican peon is not fond of washing either his clothes or himself, these Indians are extremely clean. Strange to say, the women, handsome and intelligent, carry on much of the business. A wealthy Tehuantepec housewife doesn't put on precious stones, but hangs about her neck a heavy string of gold coins; yet in spite of her money, she prefers to go barefoot. Her husband is kind to his animals, and would not dream of enjoying a

bull-fight or a cock-fight, such as delight the Mexicans farther north.

The northern part of the Isthmus is low ground, while the southern part is fairly high, consequently most of the people live on the higher portion. On account of the low ground, however, there are more navigable rivers in this part of Mexico than anywhere else in the country, though they are used only by small boats. Along their banks are plantations of cacao, which loves heat and moisture. There are also rubber plantations, but somehow, although Mexico is so near the United States, which uses most of the rubber of the world, Mexican rubber has never cut a very great figure in commerce.

Reproduced by permission of the Philadelphia Commercial Museum

A henequen plant, which has already produced about one hundred fifty leaves. Notice the spiny leaves, which are cut with the machete which the peon holds.

The Chewing-Gum Tree.—In the market-places of the Isthmus towns we sample all the fruits, and among them is one called the sapo'te or zapo'te. It has a sweet pulp that we think is quite good.

"I never heard of the sapote before," says Ruth.

"Oh, it is a valuable tree, the sapote-tree," the polite seller answers in mellow Spanish. "The fruit is sweet, the wood is strong, and, beside that, it is a tree that you Americans love."

Jack gives a long whistle. "He's kidding us, Ruth. Don't let him do it."

"It is true, señor," continues the fruit-man. "Do I not know that the Americans buy the sapote gum by ship-loads? Only they call it chic'le gum. They sweeten it, flavor it, put wrappings upon it, and your girls and boys chew it just as some of us do. One kind of your gum is called 'chiclets.' Is it not so?"

"You win!" acknowledges Jack. "I see I have to go away from home to learn about home industries."

"I'll bet our teachers at home wish the zapote trees would all die," Alice observes. "They're always after somebody who's chewing gum instead of studying, and they say the habit isn't lady-like."

"Well, Alice, they're right," observes Ruth. "If you have to chew gum, go into your own room and shut the door. Then look into the glass while you chew, and I think that will cure you."

The Mighty Mayas.—Hidden away in the jungle of this part of Mexico are deserted cities and temples of vast extent, built by the Maya (Mah'-yah) people long ago, perhaps at the time of Christ. We often speak of the Aztecs whom Cortes discovered as being quite civilized in many ways, but the Mayas of Southern Mexico far surpassed them. Some scientific men say that the Aztecs learned their arts from the Mayas, for no other native people of America were so intelligent.

Over Southern Mexico, eastward in Yucatan, and southward in Central America, hundreds of Maya temples, towers, pyramids, and palaces remain to tell us of their builders. Hundreds more, no doubt, have been swallowed up by the jungle, and some day will be brought to light.

Strange to say, it's through chewing-gum that many of these cities have been found. Chicle gatherers, pushing their way through the forest, came upon the wonderful ruins and hastened to tell the tale. Some of the cities we know were inhabited when the Spaniards came. Others we think were deserted because the climate became too moist and the people grew tired of keeping back the jungle.

We travel on mule-back through the dense woods to see one of the ancient cities, Palenque (Pa-len'-kay). This was the first of these forgotten places to be discovered in modern times. When, just before our Revolution, stray Spaniards stumbled across Palenque, the news amazed the world. Palenque proved to be more remarkable than any other Mayan ruin later found. It once was a great and powerful city, but the huts of palm and bamboo in which lived the "common people" long since rotted away, and only the stone buildings remain, which formed the centre of the city

"Oh! Oh!" cry the girls as we come into the clearing where the ruins stand; then they grow speechless with amazement. They have not expected to see such grand buildings and artistic sculpture. On pyramids of earth, once faced with stone, stand palaces or temples, sculptured inside and out, with cement designs and figures, brightly colored. A tower several stories in height rises from one corner of the largest building, and there are many tablets with the Maya writing, which we do not yet understand. A few of the Maya books made from agave paper still exist, and some day we may be able to read them.

The Thumb of Mexico.—Let us visit another land of the Mayas, the peninsula of Yucatan. By a launch carrying a load of chicle, we go down a tropical river in the state of Tabas'co, which gives its name to the hot sauce sometimes put on oysters, until we reach the port of Fronte'ra. A steamer bears us for a day or so along the curve of the Bay of Campe'che until the white houses of Progres'o gleam upon the shore.

Meanwhile, Fred has been absorbing information from the chief officer of the steamer. Yucatan, he finds, is about as large as Kansas, a great big "thumb" sticking out between the Gulf of Mexico and the Caribbean Sea and coming within one hundred fifty miles of Cuba. Consequently it isn't very far from the United States. Five hundred miles of sailing directly southward from New Orleans will bring a traveler to Progreso.

Almost all of the peninsula is a flat mass of coral limestone rock, covered with only a thin soil, and the sun beats down upon it with great strength. Forest covers a great deal of the land, but it's a scrubby sort of forest, except in some parts near the coast. Even though the trees aren't very high, the woods are so tangled and thorny that they are hard to travel through. It is an unpromising-looking region with no eatable wild fruits, berries, or vegetables. The peninsula is shared into three almost equal parts among the Mexican states of Yucatan and Campeche and the wild territory of Quintana Roo in the east, where live the Mayas who have never really submitted to Spanish rule. Progreso is in the state of Yucatan.

The Henequen Centre.—It is so hot in Progreso that we don't stay there long; as soon as possible we take the train to Mer'ida, the capital of Yucatan. Merida is old, but looks

new, and it is one of the cleanest cities of Mexico. In almost every quality except climate it is a pleasant and up-to-date place to live. "What makes Merida so prosperous?" asks inquisitive Jack. The reason is that it is the centre for producing something which the United States very much needs.

Reproduced by permission of the Philadelphia Commercial Museum

Henequen drying in the sun at a hacienda.

There are in Mexico many kinds of agave plants, like the maguey, that yield useful fibre, and all these plants seem to grow best in poor, dry, thin soil. Of these the most important is the hen'equen plant, whose fibre is often called "sis'al hemp" from the port of Sisal, which once shipped out plenty of it. Though not so strong as the "Manila hemp" which comes from the Philippines, "sisal hemp" is much cheaper.

Americans use it for rope, but its greatest use is for making binder twine. The reaping and binding machines on our United States farms would have a hard time to get along without sisal hemp.

On the Henequen Plantations.—Surrounding and supporting Merida are vast henequen haciendas, so large that each community of their workers seems like a small town. On these henequen plantations work one-third of the Indians of Yucatan. We visit one of the plantations to see the Mayas at work. They have intelligent faces, bright eyes, and pleasant manners; in fact, Ruth declares that they seem far superior to the peons on the Mexican plateau. Under the hot sun, however, in the heavy air, their work is hard, and report says that they are poorly fed and poorly paid.

On a henequen hacienda there is constant labor. The rows of plants must be kept free from weeds. Four times a year harvest is gathered from each plant, and the owner tries to have enough plants so that harvesting will never stop. With his heavy machete the laborer cuts off the biggest leaves, trims off their thorny edges, chops off the spiny end, and piles the leaves in neat heaps. He must cut and trim at least two thousand leaves in a day.

Small cars carry the bundles of leaves to a central building, where a "stripping machine" tears up with blunt steel teeth the tough leaves and releases the hair-like fibre. The pulp of the leaves is washed away by water, which runs through the machine. After two or three days of drying in the hot sun, the greenish fibre turns yellowish or whitish, and is baled by great presses. Off it goes to Progreso, then to New Orleans, and before long it is tying up the sheaves on some Kansas wheat-farm.

Henequen is one of the most valuable exports of Mexico.

People have tried to raise it elsewhere—in Cuba, in the Bahamas, in the Hawaiian Islands—but have not met with great success. Therefore the henequen "kings" on their vast estates keep on piling up riches, whether their laborers share in the prosperity or not; and just as long as Uncle Sam

Reproduced by permission of the Philadelphia Commercial Museum

Women of Yucatan. These have Maya blood and are pleasant in appearance and manners. Though well dressed, they go barefoot.

is a good customer, henequen will continue to rule in Yucatan and around Merida. No wonder that henequen has been called "green gold."

Water in the Cellar.—"I miss something in this country," says Ruth, looking puzzled. "What can it be?" Next day she has found the answer. There are no beautiful streams, no wayside springs; there is no water to be seen as we travel about. Yet, somehow the people manage to get water and the question is, how?

In the city of Merida, thousands of windmills pump water from the earth, and the haciendas use windmills too. But what do the people of the native villages do? "Here is a village, let's watch," suggests Alice.

"Oh, there's a woman with a water-jug now. Keep your eye on her," sings out Jack, who is usually on the alert. "Why, she's lighting a candle. Now she's going into that cave down those dark steps. One, two, three, four, five minutes—here she is again with a full jar. Do the Yucatan Indians keep their water in the cellar?"

Really, that is just what they do, or rather what Dame Nature does. The "cellar" is a natural well, the water being fifty, seventy-five, a hundred feet or more below the surface of the ground, and down to it, by a rude staircase, the women must go. All the water of the peninsula, except that of some swamps, is found in this way, deep in the ground. What is the reason?

Fred Finds the Reason.—Before long Fred figures out the reason. "This country, you say, is made of limestone," he remarks. "Well, I remember from our visit to Mammoth Cave what happens in a limestone region. The rock dissolves, forming passages and caves, and the water sinks into the ground. Didn't we have a strange ride on Echo River, way down there under the earth? Alice was afraid, too; I remember that."

"I suppose I was," admits Alice; "and I would be again if I had to get water out of these dark holes in Yucatan."

Naturally, the Indian villages cluster about the wells. A few of the wells are open to the sunlight, but most of them are hidden in the dark. Because wells were so precious, some were held sacred to various gods. Young girls were thrown into them to secure the god's good-will, and big lumps of

precious copal gum, now used by us in making varnish, were also hurled into the dark depths.

"I shall always remember Yucatan," says Ruth, "as the country that keeps its water in the cellar."

QUESTIONS AND SUGGESTIONS

1. Draw a sketch-map showing the ports of Mexico.
2. Read in an encyclopedia about the basket-ball courts in the Maya temples such as Chichen-Itza.
3. Are the Mexican rubber-trees as good as those along the Amazon?
4. Where is the most rubber raised in the world?

CHAPTER XXVII

TWO BIG AND ONE LITTLE

On the Way to Central America.—We should like to travel on horseback through the forest to the east coast of Yucatan; but our friends advise us not to try it. The forest, though not high, is very thick, there are few wells, and the Indians might mistake us for Mexicans and put some bullets into us. In the end we board a steamer from Progreso which takes us southward through the Yucatan Channel into the romantic Caribbean. On the boat are two friendly young men of Spanish blood who have been studying in Philadelphia and are now returning for a summer visit to their homes in Central America. Fred and Jack soon stand on pleasant terms with these students.

Rafael' Morazan', the elder student, has taken up medicine, and his companion, Manuel Carre'ra, intends to be a dentist. "There is much opening for us in our countries," says Señor Morazan, "since we study at a place of high reputation. Many of us Central Americans come to your land to study medicine and dentistry, or to learn business practice."

Señor Morazan's Story.—"Tell us about Central America," begs Jack the curious, and the Señor begins. "Central America really ought to start at the Isthmus of Tehuantepec," he says, "but Mexico took that part of our region. Our part of the earth is now shared among seven divisions—the colony of British Hondu'ras, which is off to your right just now, and six republics, Guatema'la (that's my country),

Nicara'gua (that's Carrera's native land), Honduras, Sal'vador, Costa Rica, and Panama'.

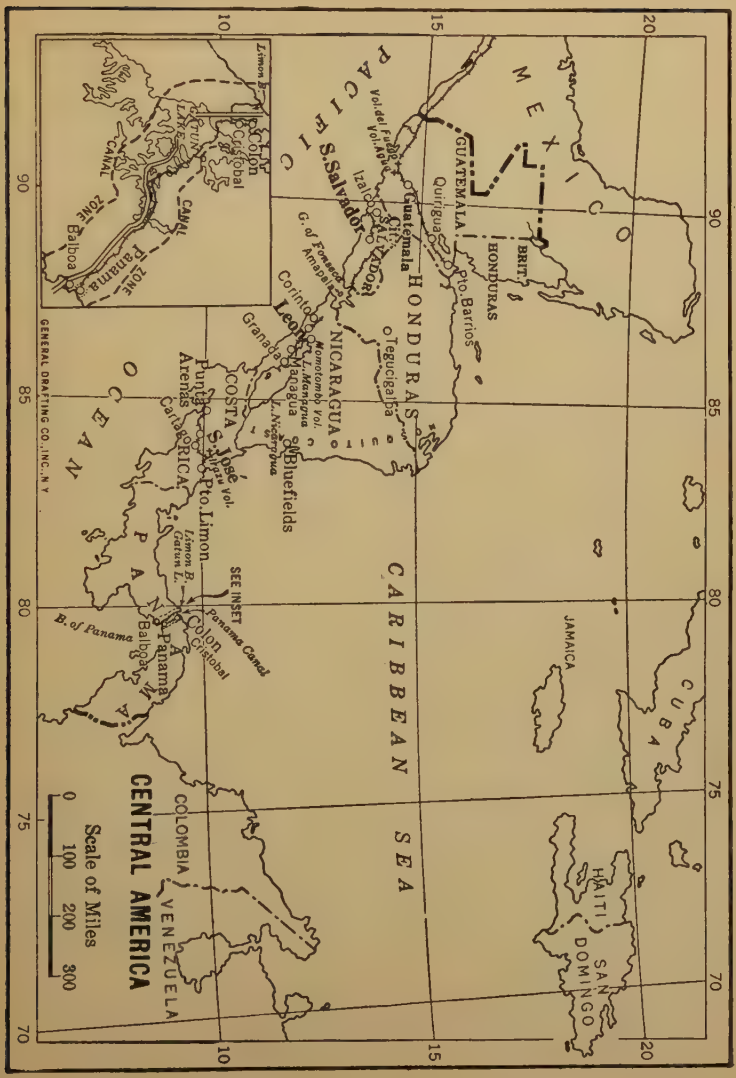
"British Honduras doesn't count for much. It's about the size of New Jersey, but it isn't very healthful, and only a few whites live there. Most of its business is in logwood and mahogany. I don't suppose that you will take time to go there.

"Our six republics aren't very big, but they compare pretty well in size with some of your states. Guatemala, Honduras, and Nicaragua are each about as large as New York. Panama is about the same size as Maine, Costa Rica is two-thirds as large as Panama, while little Salvador is somewhat less than the area of Massachusetts. We think that our countries are well worth knowing, even though they have not an immense amount of manufacturing or commerce. They are rich enough in nature's gifts, but their people are mostly poor."

"You're a good lecturer," says Fred admiringly, as Señor Morazan stops for breath. "Please go on."

"I hope," continues our friend, "that you won't make the mistake that many Americans do, for they think that Central America is all tropical jungle, hot, rainy, and unhealthful. That is because they have seen only a strip along the Caribbean coast which is that way. A large part of Central America is high above the sea, with a delightful climate. There winter never comes, yet it is not too hot for work or play. We build our best cities in that pleasant region. I shall be happy to show you something of Guatemala."

Mr. Coffee and Mr. Banana.—The town of Puerto Barrios', where we land, is named after a former president of Guatemala who was shot. It is decidedly not a grand place. On the wharf, however, are piled thousands of bags of coffee and thousands of bunches of bananas.


CENTRAL AMERICA
Scale of Miles
0 100 200 300
GENERAL DRAFTING CO., INC., N.Y.
MEXICO
PACIFIC
OCEAN
CARIBBEAN SEA
GUATEMALA
BRIT. HONDURAS
Quirigua
Pto. Barrios
Guatemala
Izalco
S. Salvador
Vol. del Fuego
Vol. Agua
HONDURAS
Tegucigalpa
NICARAGUA
Corinto
Leon
Granada
Managua
Momotombo Vol.
L. Managua
L. Nicaragua
Bluefields
COSTA
Punta Arenas
Cartago
RICA
S. José
Pto. Limon
Limon B.
Gatun L.
SEE INSET
Panama Canal
Colon
Cristobal
Panama
Balboa
B. of Panama
PANAMA
COLOMBIA
VENEZUELA
JAMAICA
CUBA
HAITI
SAN DOMINGO
Limon B.
Colon
Cristobal
GATUN LAKE
CANAL
ZONE
Panama
Balboa

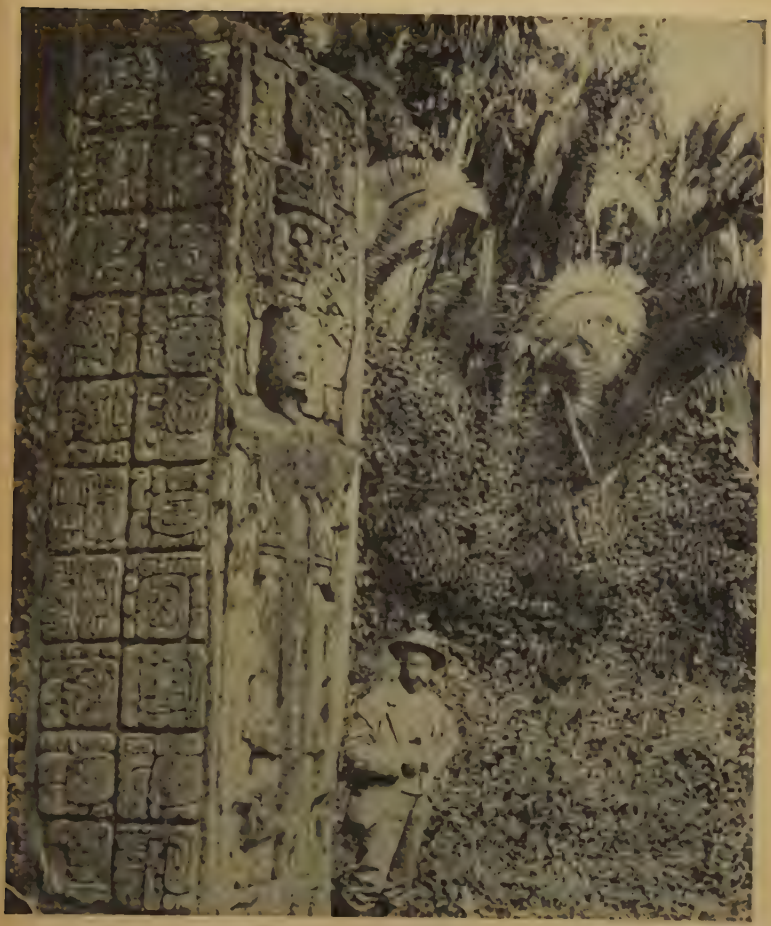
"It was coffee that sent me to school in the United States," laughs Morazan, "for coffee is king in this country. Guatemala raises more coffee than Mexico—did you know that? We sell a good deal of it to Uncle Sam, too, for the greatest part of our trade is with your country."

"Why don't you trade with Mexico?" thoughtful Fred inquires. "She is your next-door neighbor."

"Mexico doesn't supply the things we want," replies Morazan. "She raises about the same products that we do—coffee, sugar-cane, tobacco, beans—so she competes with us. From the United States we get our flour, our cement, our iron and steel, our railway material, and our electrical supplies. Mexico can't give us these.

"As for the banana," Morazan goes on, "that has been a wonderful thing. Once the tropical jungle along the Caribbean cut us off from the United States. Our eyes were turned toward the Pacific. Then your big fruit companies bought big tracts of that jungle, planted bananas, and gave our people work. Because of the banana, we have towns, wharves, railroads, where once lay a wilderness. The banana not only helps us to buy your goods, but it has really brought us nearer to your country. Think of that when you eat your next banana. Soon Mr. Banana will be as much of a king in Guatemala as is Mr. Coffee; and they don't need to be jealous of each other, because their kingdoms are not the same."

The Four Capitals.—From Puerto Barrios the engine which has brought coffee down from the mountain slopes pulls us up back over the same route. On all sides lie mountain walls and fertile valleys. About sixty miles from our starting-point we pass the ruins of Quiri'gua, another of the wonderful ruined cities of the Mayas; but we cannot stop



Reproduced by permission of the Philadelphia Commercial Museum

One of the Maya monuments at Quirigua. Scientists are now working on the problem of understanding the Maya civilization.

to see them. "This train goes so slowly I think I could hop off, go to the ruins, and catch up with it again," smiles Jack. However, in time we reach Guatemala City, the capital.

Perpetual June reigns here; even the heat is tempered, because the city stands on a plateau nearly a mile above the sea-level. "This is a fine spot," remarks Ruth.

"Yes," answers Morazan, "unfortunately the plateaus are subject to a special kind of disasters. This is the fourth capital my country has had. On the Pacific side of this plateau is a chain of volcanoes, most of them seeming dead, but we know that a volcano that seems dead for centuries may be only sleeping after all.

"The first capital built by Alvara'do, the Spanish conqueror of Guatemala, was near two volcanoes, one called Fuego or 'fire' and the other Agua or 'water,' because it had slept so long that a deep lake filled its crater. No one thought of danger from the volcanoes. When Alvarado died, the Spaniards chose his wife to be their governor; but her term of office was short. The next night lightnings began to play around the crater of Agua, the earth shook with a noise like thunder, and before morning the lake from Agua rushed down the mountain-side, bearing down upon the town great rocks and trunks of trees. Among the many corpses lay the body of Alvarado's widow.

"From the ruins the surviving inhabitants moved a few miles and founded another city, which grew to be one of the best in America at that day. In spite of the eruptions of Fuego, in spite of the many earthquakes, the city endured for more than two hundred years; then the shocks grew so strong that they wrecked the town. That was while your Samuel Adams and Patrick Henry were talking about liberty.

"Guatemala City was then built again some distance away. The old capital still exists, but it is not very important. For about one hundred fifty years the third city grew and prospered, but on Christmas Day, 1917, while we were happily celebrating the holiday, there was a terrible earthquake, and half the city seemed to fall into ruin. For a month

Reproduced by permission of the Philadelphia Commercial Museum

A market-place in Quezaltenango, Guatemala. The country-people have little use for shops or stalls; they prefer to carry on business in the open air, with much conversation.

the shocks continued; many people lost their lives, and it was dangerous to stay here. Yet when the trembling finally stopped, we had not lost heart. We set to work and rebuilt the city finer than before. Wouldn't you say, then, that Guatemala has had four capitals?"

Present and Future.—As, next morning, we go about the city with Señor Morazan, Fred notices that the buildings are mostly of one story. "I see," he smiles, "if they fall, they won't cause so much damage." In spite of the lowness of

the buildings, Guatemala City is clean and modern, and we like our stay there. We have arrived in June, at the beginning of the rainy season, so there are heavy showers every afternoon, but the mornings are beautiful. No wonder that the city, which is the size of Jacksonville, is the largest in Central America.

"Don't forget that my country has a northern part," says our friend. "It isn't developed yet, that part which borders Mexico, but it will be some day. Imagine a great plain, mostly covered with forest in which are many chicle-trees, more, probably, than there are in Mexico. The plain has hardly been explored. In the streams are alligators, in the forest are the fierce wild pigs called peccaries, as well as tapirs, those long-nosed animals that live in the swamps. Some day, I hope, it will be a region for grazing and farming like your Louisiana."

On the Pacific Coast.—Kind Señor Morazan even accompanies us to the train which bears us away from the capital, and we are very sorry to bid him good-bye. The railroad toward the Pacific passes between towering Fuego and towering Agua, and on through miles of coffee-plantations, for in all of Central America coffee clings to the Pacific side of the mountains. After ninety miles of travel, we reach the little port of San José, on the Pacific. Its name means St. Joseph.

As the trade-winds blow from the northeast, the Pacific side of Central America is much drier and therefore much more comfortable than the Atlantic side; so the bulk of the people are found on that coast. Rich coffee and sugar "fincas," or plantations, have made San José famous, even though it is not really a good harbor.

The steamer from San José takes us past the shores of little Salvador, the smallest nation of America. Salvador, being entirely on the Pacific side, is more thickly inhabited than any of the other Central American republics, though it has scarcely any manufactures worth mentioning. The intelligent, prosperous people of Salvador are so busy raising coffee and sugar-cane that they don't have time for the revolutions which so often disturb her sister countries.

In the woods of Salvador grow trees which produce a sap or resin called Peruvian balsam. These white-barked trees much resemble rubber trees and are tapped in a somewhat similar way. In old Spanish days the viceroy or king's representative in the western world lived in Peru. The balsam had to be sent from Salvador to merchants in Peru; then it was shipped back to the Isthmus of Panama to be sent to Spain. As the ships received this balsam from Peru, they called it Peruvian balsam. It is spicy and pleasant and is used in medicine.

The Light-House of Salvador.—As night falls, bright flashes appear in the sky. "What's that?" asks Ruth. "That's the 'Light-house of Salvador,'" answers one of our fellow-passengers.

"What, way up there?" says Alice, amazed. "Why, it must be a thousand feet high!"

"It is six thousand feet high," replies the gentleman, "and it built itself. I think you have guessed that it is a volcano; its name is Izal'co. Three years before the second capital of Guatemala was destroyed, there were earthquakes in Salvador, and from the earth burst up showers of lava and ash. Soon there was a volcanic cone there. Every few minutes there was a fresh explosion, and at the end of some

weeks the lava and ashes had built up the cone to a height of four thousand feet. Now this new volcano is nearly as tall as Mount Washington."

"How terrible it must be to live near a volcano!" Ruth exclaims; but our friend answers, "The coffee-planters think that, on the whole, active volcanoes are good things. The ash which they spread over the country fertilizes the land, and even the lava decays to make rich soil, so there you are! As the Americans say, 'One man's meat is another man's poison.'"

From Gulf to Capital.—After a time we steam into a beautiful bay, the Gulf of Fonse'ca. Three countries border on its shores. To the left is Salvador, to the right Nicaragua, and straight before us rise the mountains of Honduras. Like all but one other of the Central American republics, Honduras stretches from ocean to ocean; but it is funnel-shaped, and from a narrow shore on the Pacific it widens out to a coast of three hundred miles along the Caribbean.

As our vessel gets well into the gulf, an island with a volcanic cone stands before us. At the base of the volcano a tiny town fringes the water—it is the hot Honduran port of Amapa'la. There's nothing much to do at Amapala except to watch coffee being put on board ship, so we get a launch to convey us to the mainland.

Even hotter and less desirable is our landing-place on the mainland, and all of us are glad to hire a rickety automobile for the eighty-mile ride up to Te gu ci gal'pa, the capital. Honduras is mountainous from sea to sea, and as we mount, following the valley of a rapid river, many wonderful views entertain us. Great lizards, called igua'nas, scramble out of the rocks to puff out their throats and calmly stare at us. "Iguana is as good as chicken," remarks our chauffeur. Past

coffee-finca after coffee-finca the car climbs, until the chauffeur says, "Tegucigalpa."

For a day or two we wander about the streets of the capital and see all there is to see. It is not an imposing place. Although its climate is delightful, it is perhaps too delightful, for the little city seems very sleepy. The surrounding plain is the best-settled part of Honduras, but even this is thinly inhabited and feebly farmed.

Honduras, in short, is a backward republic, quite different from progressive Salvador. Almost all its people are Indians or have Indian blood, which seems to make them indolent. Revolutions come quite often in Honduras, and foreigners are not encouraged. The Hondurans are somewhat like the famous dog in the manger—they won't develop the country themselves or let others do it.

Yet Honduras is a very rich country. Her many mountain masses are stored with useful minerals, her forests have many kinds of trees, from pine to mahogany, and her plains could make farmers or cattle-raisers rich. True, the Americans have seen to it that there are great banana-plantations bordering the Caribbean, and coconuts by millions also are exported with the bananas.

We visit a gold and silver mine not far from Tegucigalpa. It belongs to Americans and for many years it has been operated under American eyes; it has continued to produce and to produce at a profit in spite of revolutions. Around this Rosa'rio mine, probably the only surely profitable one in the country, is a small town, where live with their families the multitude of peons who labor underground. A train of mules loaded with silver is just ready to start for the Pacific coast as we arrive. The silver, a black powder, is put in boxes which finally reach the United States.

"I'm afraid Honduras is doomed to be a sort of Rip Van Winkle," says Fred, as we finally leave Tegucigalpa. "When she does wake up, she will rub her eyes to see how far behind the times she is."

QUESTIONS AND SUGGESTIONS

1. Compare each of the Central American republics as to size with your own state.

2. Why is it said that the kingdoms of Mr. Banana and Mr. Coffee are not the same?

3. In what Mexican cities, as in Guatemala city, is there "perpetual June"?

4. Draw a map of Central America showing how the railroads cross from ocean to ocean.

5. In which country would you prefer to live, Honduras or Salvador? Why?

6. "Lost in Nicaragua," by Hezekiah Butterworth, describes the search of a young naturalist through all of Central America to find the gorgeous quetzal bird, the emblem of Guatemala.

CHAPTER XXVIII

NICARAGUA, LAND OF LAKES

The Way to Managua.—Soon after leaving the Gulf of Fonseca our steamer stops at Corinto, in the country of Nicaragua, and we go ashore again. "What a short ride we had," says Ruth. "I wish we could have taken the trip by rail."

"Don't you know," remarks Fred, "that these little countries are so jealous of each other, they wouldn't for anything allow their railroads to connect? It's a joke, isn't it?"

Here at Corinto is a train. Although jolly Jack says he could buy one almost as good in any department-store at home, the train at least carries us along past sugar and coffee plantations, past native villages with rude huts, past creaking ox-carts piled with dyewood, past the city of Leon′, until the waters of Lake Mana′gua show through the trees. For a time the train rattles along near the edge of the big lake, until with an extra clatter it pulls up at the station of Managua, Nicaragua's capital.

In Nicaragua's Capital.—Once installed at the none-too-cheap hotel, we sally out to see the sights. Ruth gazes for a long time at the lake, whose farther shore, ten or twelve miles away, is almost lost in a steamy mist; but hungry Alice prefers the wonderful display of fruit in the baskets of the native market. There are delicious pineapples, shiny red pomegranates, and yellow papayas (pa-pah′-yahs). The papaya, after its black seeds are removed, is like a fragrant canteloupe, and helps to digest one's food. Indeed, so much

of this digestive help is found in the papaya, that beef, rolled in papaya leaves for a day, will become tender.

Our friend Manuel Carrera calls at our hotel the morning after we arrive. "What can I show you in Managua?" he anxiously inquires.

"Please tell us about Managua while we sit comfortably in the patio," begs Fred. "Managua isn't up very high, you know, and the sun is very hot." So Señor Carrera takes a sip of cool lemonade, leans back in his rocking-chair, and begins:

Señor Carrera's Story.—"You have been in Honduras, yes? A backward country, is it not? Many revolutions, little profit. Not much education, not much work. I love my country, but I am afraid the same description fits Nicaragua. Yet it is a beautiful land. It has, you may say, two parts. In the east is a hot plain, not much used except for cattle and lumber, except near the coast, where the Americans have called banana-plantations into being. In the west is the real Nicaragua.

"Here in the Pacific half of the country lie two big lakes. One you have seen, but its waters flow into Lake Nicaragua, which is far bigger than Lake Managua—indeed, it is the size of Yellowstone Park and is the largest lake between Lake Michigan and the country of Peru. Between those two lakes and the Pacific most of the Nicaraguans live.

"Managua, you know, is a city built to order, like Gary in your own country. When Nicaragua gained its independence and needed a capital, our two largest cities, Leon', through which you passed while coming here, and Granada, on Lake Nicaragua, disputed for the honor. Neither would give way, so our legislature decided to go to a new place, located between two quarreling cities. Here is Managua, and I think you'll agree that it is well situated."

"I wish all quarrels could be compromised so well," says Alice, cheerfully.

"You do not wish to go out in this heat," smiles Señor Carrera, "and I think you are wise; but to-morrow very early I will send my nephew José to escort you. Unfortunately I am detained by business."

How Leon was Deserted.—"Before you go," Ruth cries,

Courtesy Rau Studios

Mount Momotombo as seen from Lake Managua.

hastily, "please answer one question. Are there volcanoes in Nicaragua, too?"

"Yes, indeed," answers our friend. "Leon was the first town founded here, and was named by the founder after his native province in Spain. It lay at the foot of Mount Momotom'bo, whose shape might have told the settlers that it was a volcano. For nearly a hundred years, however, everything was peaceful. Then, so the story goes, the wild son of the governor quarreled with the bishop, and killed him.

"Horrified at this crime, the priests predicted that some terrible disaster would come upon Leon. Strange to say, Momotombo soon burst out into eruption and destroyed part of the city. The people declared that their homes were cursed, and together the governor and the new bishop selected another site twenty miles away. Leaving the houses that remained, the citizens marched in solemn procession to their future home, and there Leon stands to-day. Yes, there are volcanoes here, Miss Ruth. Adios, señores and señoritas. José will present his compliments in the morning."

No Rum.—Before we have any more than finished our breakfast, appears José, a slender, black-eyed boy of about fourteen, dressed in spotless white. He seems older than his years, but is so courteous and so pleasant that he wins our hearts at once.

First José takes us into the cathedral, then up winding stairs to its roof, from which the view is astonishing. Blue Pacific to the west, blue lake to the east; around us, volcanoes, forest, and plantations. "Much of Nicaragua is wild and unsettled yet," says José. "Well, we have plenty of unsettled land in the United States, too," says Fred, to put José at his ease.

"I would like next to conduct you to an establishment where they turn the cane-juice into aguardien'te," José announces. Jack, not knowing what that name signifies, is ready in a minute, but careful Ruth says, "What's aguardiente, anyhow?"

"Agua—ardiente," answers José, "is fiery water, what you sometimes call rum."

"Yes," exclaims Alice, "we know about that from

Jamaica. If you don't mind, we'll go somewhere else. We don't think that rum is a good thing to make."

Our National Game.—"Very well, then," smiles José, "I'll show you something that will please you." He leads us away from the centre of the city for a few blocks. "Stop and listen," says he, as he holds up a warning hand. From somewhere near by come wild shouts in boyish voices. "Do my ears deceive me?" exclaims Fred. Followed by Jack, he breaks into a run.

In a moment or two we reach an open space where a crowd of brown-skinned boys are playing. Now we hear plainly—"One ball!" "Two strikes!" "Out!" Can that be baseball? Yes, there is a youngster swinging a real American bat. "How in the world did baseball get here?" questions Jack.

"That is a good story," says José, turning to us in triumph. "Years ago, in 1912, our Secretary of War rebelled against the government. His soldiers seized the railroad owned by Americans, between Managua and Lake Nicaragua, and also took the boats operated on those two lakes by the railroad company. From these boats they fired on Managua and killed many people who were defenceless. Your American Minister tried to stop such a massacre of women and children, but failing in that, he sent a message to Washington, with the consent of Nicaragua's President, asking for help.

The Marines Play Ball.—"Soon twenty-five hundred American marines and sailors landed at Corinto. The revolution stopped after one fight, in which the marines lost just four men. After two months the American force withdrew, except a hundred marines who stayed to guard the home of

your Minister. For thirteen years that guard remained. We merchants did not want them to leave, for they were a sign that peace and good stayed with them. Uncle Sam had promised to see to it.

"At first, nevertheless, the working-men of Managua disliked to see foreign uniforms. They said hard words about the Yankees who invaded their country. Then they grew interested in seeing the marines playing baseball; a few Nicaraguan young men began to practice among themselves. The Yankees coached them, and soon we and your men were good friends.

"In 1925, affairs here had gone so well that Uncle Sam called his marines home, and most of them were sorry to go. No sooner had they left than another revolution started and another detachment had to be landed. I hope now that all will stay quiet, for we ought to be able to govern ourselves properly. By the way, when did you have your last revolution?"

"Revolution?" answers Ruth, shaking her head. "Why, more than one hundred and fifty years ago. Our Civil War was more than sixty years ago, but that wasn't a revolution, for it didn't overthrow our government."

"Ah, when will Central America be free from revolutions?" sadly says José. "It seems that, like our volcanoes, our revolutions must break out every now and again. No wonder that you are prosperous since you are so peaceful!"

José at Granada.—"Won't you come with us to Lake Nicaragua, José?" asks Alice. "We need a good instructor."

"At your service, señorita," José replies with a bow.

So a day or two later we reach the city of Granada, and

next morning we see the sun rise over the big lake, while a steamer loaded with cacao and sugar whistles loudly as it leaves the wharf. "I think I could get seasick in a real storm here," is Jack's remark. The lake, in fact, is nearly a hundred miles long and thirty-five wide.

"Now I will tell you about the canal," says José.

"Why," cries Fred; "this isn't Panama!"

"Ah, I see you do not know your American history," José remarks slyly. "Never mind, a Central American will tell you.

The Proposed Canal.—"For many, many years it was the dream of men to cut a canal through Central America. What was the best place? The narrowest part in miles was at the Isthmus of Panama, but that was a nest of yellow fever, and many engineers thought that in Nicaragua a better place could be found. From Greytown, on the Caribbean, small vessels could already go up the San Juan River and into Lake Nicaragua. After crossing the lake, they were only seventeen miles from the Pacific, and, strange to say, there was a sort of valley already offering a passage from lake to ocean. Nature seemed to have pointed out the very road for a canal.

"When the Forty-niners were rushing to golden California, an American company, headed by Cornelius Vanderbilt, put steamers on the route across Nicaragua, and ran stage-coaches to carry the passengers and freight over the seventeen-mile land passage to the Pacific. Although the company soon went out of business, the United States became very much interested in Nicaragua. Thirty years later, American business men actually began a canal, but after four years of work, it had to be given up.

"Uncle Sam, however, after thinking it over, decided that there ought to be a Nicaragua Canal, and was just about to dig it when the company that had been trying and failing to dig the Panama Canal offered to sell out to your country. That, of course, put the idea of Nicaragua Canal out of mind. Yet your government still thinks that some day a second canal will be needed. Why not? It is much nearer to the United States than is Panama.

What Will Come?—"To be wise and prudent, Uncle Sam has made a treaty with my country which gives the United States the only right to build the canal between the oceans. Uncle Sam also was presented with the right to fortify Corn Islands near the Caribbean end of the canal and a spot on the Bay of Fonseca, so that Yankee war-ships could defend both head and tail of the canal if need be. Wouldn't it be worth while to have two water-paths through Central America so that if an earthquake should block one up, the other might still be open? I expect to see the Nicaragua Canal built before I grow old."

On account of the speed with which the banana trade by Americans and with America is growing, Uncle Sam each year has a larger interest in Nicaragua. Over in the eastern shore there is a long stretch of wild land called the Mosquito Coast. The chief settlement is Bluefields, at the mouth of a river that for many miles is lined with banana-plantations. Millions of bunches of bananas each year travel on big white steamers from Nicaragua to our land.

"Goodness!" cries Ruth. "I had no idea that Nicaragua means so much to us."

"And your country means much to us," smiles José, with a bow.

QUESTIONS AND SUGGESTIONS

1. Do you think it is wise for the Central American countries to keep their railroads separate? Why?

2. Explain "The real Nicaragua is in the west."

3. What city in Canada became the capital, like Managua, by a compromise?

4. What sports have we adopted from foreign countries?

5. Draw a sketch-map of the proposed Nicaragua Canal.

6. In chapters 21 to 24 of "Marines Have Landed," by Lieutenant-Colonel Giles Bishop, read how Dick prevented disaster to the train bearing the marines.

CHAPTER XXIX

THE RICH COAST

The Greatest Banana Port.—From Bluefields we take a steamer southward along the coast until we come to Puerto Limon, or, as it is often called, just Limon. About fifty years ago there was nothing at this spot but a little village surrounded by swamps; now Limon is a city of thirty or forty thousand people. It is low, hot, and damp, but busy and prosperous. What has caused this growth? Bananas did it. More bananas are shipped from Limon than from any other place in the world.

Limon is in Costa Rica, which means "rich coast." Perhaps the Spaniards thought it abounded in gold; perhaps they only wanted a high-sounding title. At any rate, for many years the name seemed like a joke. The growing of bananas, however, has made this Atlantic coast truly rich. Here at Limon we have a chance to see banana-growing in its most business-like appearance.

From Tree to Steamer.—A big white steamer, owned by a big American fruit company, lies at the wharf. Passengers, in white suits or white frocks, gaze with interest as bananas go on the vessel. From the side of a train-load of green bananas runs a long loading machine, which carries the fruit aboard; men take the heavy bunches and pack them down in the hold, where they will be kept cold by a refrigerating machine. The workers are big, hearty negroes from Jamaica, who do not mind the labor or the heat.

Although by this time bananas are no novelty to us, we spend a day visiting the banana plantations or "walks." We roam through green groves where the big ragged leaves arch above us. We see the Jamaica negroes slashing off the bunches or "stems," we watch the long-eared mules pulling

Reproduced by permission of the Philadelphia Commerical Museum

A banana grove or "walk" in Costa Rica.

tram-cars full of bananas to the station, and we observe the inspector looking over each bunch to see that it has the proper number of rows or "hands." "Uncle Sam's taste for bananas has brought large profits to Central America," remarks Fred, at the close of our stay.

Happy Costa Rica.—"Don't stay long at Limon," is the advice of one of the plantation managers. "The climate here

doesn't agree with white people. Most of the Costa Ricans live on the plateaus in the centre of the country, and the region bordering on Nicaragua is almost deserted.

" You will like Costa Rica," pursues the manager. " It is like Salvador in being a land of smiling, happy people, who are so busy making a comfortable living that they don't

A market street in San José.

want any revolutions. One of their boasts is that they have more teachers than they have soldiers; that is not the case with some of the other republics of Central America."

For variety, we decide to go up to San José, the plateau capital, on mule-back, leaving our baggage to be sent by train. We wish we hadn't been so anxious for variety. A tropical shower pours down on our heads without warning. The road gets worse as we climb, for so steep are the slopes and so slippery the clay that in places the whole highway slides away. Even Jack's mule, usually sure-footed, falls, and

when at last we untangle Jack from the mule he looks like a mass of mud.

When the sun comes out and Jack gets rid of a few pounds of mud, circumstances seem better, and we enjoy looking at the little huts with their thatched roofs, nestled into the woods that at this elevation are losing their tropic aspect and beginning to seem like those of our own United States. Coffee-plantations appear on the slopes. It was coffee that gave Costa Rica her start toward prosperity.

The Spaniards who settled the country took up their abode on the central highland. The Indians were few in number, so, instead of having an army of natives to work for him, each colonist had to work for himself. Instead of a big hacienda, he cultivated only a few acres. The settlers of Costa Rica, therefore, were poor but hard-working, and were as much shut off from the world as our pioneers.

When, after Costa Rica became independent, coffee-growing was begun, the country began to improve. Even then, the settlers thought it was wonderful when, in the year of the Mexican War (1846), a cart-road was built to the Pacific. When, long after that, the Americans began to call for bananas, the little republic felt prosperous indeed.

On the Plateaus.—At last we reach San José, and after the tiresome experiences of the road, how good the hotel looks! The gay little city likes to think that it resembles Paris, and, indeed, most of the well-to-do coffee-planters of the neighboring country feel as much at home in Paris as in San José. There is good paving here, good lighting, a fine water supply—but no elevators, for no one needs them. As this is earthquake country, most of the houses are only one story high.

It is pleasant up on this plateau. During the day we ride out into the surrounding country, with its rolling hills, its forests, and its grassy savannahs spotted with cattle. In the evenings we do like all the rest of the people; we stroll about the central plaza, greet our friends, and listen to the

Reproduced by permission of the Philadelphia Commercial Museum

Drying coffee in Costa Rica. After the reddish pulp is removed from the coffee seeds, they must be dried on cement floors in the sun. The man is raking over the seeds to make sure they are all thoroughly dried.

spirited music of the band. No Central American town can be proud of itself unless it has a gayly uniformed band; and the selections which the band plays are usually of a high class.

The people we meet have more Spanish blood and less of the Indian than in the other little republics. Their prevailing color, as Alice says is suitable in a coffee-land, is that of light coffee, and many of the girls are very pretty.

Although the dress of the Indian women is gaudy, the ladies of high class dress in black or white. "Colors are for the Indians," they say.

This plateau region of Costa Rica has its volcanoes like those of the other republics. Cartágo, the old capital, lies only a few miles from San José. Near it is the volcano of Irazú, which once almost destroyed it, and in 1910 an earthquake killed a thousand inhabitants of the city, crushed by falling buildings. There is a reason for the one-story houses of Central America.

Ready to Leave.—When we take our departure toward the Pacific, Jack makes no objection to using the train. He has had enough of riding on steep trails. The seventy miles from San José are soon covered; we step out at Puntarénas or Sandy Point, and see the Pacific before us. There is not much of interest here except the bristling cactus hedges which the people plant and the shipments of gold bars which come down from the American mines not far away. When a steamer arrives to take on a little gold and a great deal of coffee, we are quite ready to start for Panama; but we carry away pleasant memories of happy Costa Rica.

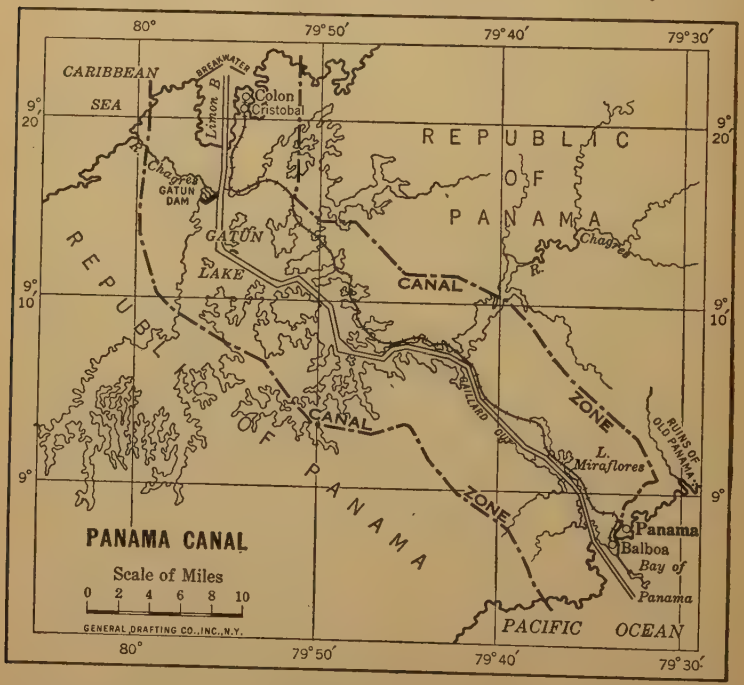
QUESTIONS AND SUGGESTIONS

1. Would you prefer to live on the Atlantic or on the Pacific side of Central America? Why?
2. In what ways have Americans been able to develop large undertakings in foreign lands?
3. How did the settlers of Costa Rica resemble the settlers of New England?

CHAPTER XXX

A NEW WORLD-HIGHWAY

Down to Panama Bay.—Down the coast from Puntarenas the steamer takes her leisurely way. Two days after



leaving, our vessel swings into a broad bay studded with many islands—it is the Bay of Panama. We are about to land in the young republic of Panama, the country of Central America which comes nearest to the Equator.

While the steamer waits for the health officer to come aboard, Fred and Ruth take turns in telling us what they have learned about Panama from the ship's well-stocked library. "Panama is almost as big as Maine," begins Fred. "but it has only two-thirds as many people, and a lot of them are hidden away in Indian villages scattered through the thick forest. The country of Panama and the Isthmus of Panama are about the same, and the isthmus is all twisted up in the shape of an S. Go on, Ruth."

"You've given the main facts," Ruth responds. "This twisted isthmus is full of twisted mountain ranges. There are some old volcanoes that are very high, but most of the mountains are low, like those of Pennsylvania. Of course it's quite warm and rainy here, so forest or jungle grows over the land very fast unless people keep cutting it down. For a long time the jungle and the jungle-fever together made the isthmus a real barrier between the two oceans, although on the average it is only a hundred miles wide. Where they dug the canal it is not half that width."

Balboa and Panama.—"Here we go!" cries Jack, as the ship begins again to move. Off to our left appears a long breakwater, and ahead of us are the red roofs of a town. "Jack, do you remember who discovered the Pacific Ocean?" asks Fred, looking up from his map. "Balboa, of course," comes the quick answer. "Well, that's the town of Balboa," Fred replies, "and that marks this end of the Panama Canal. Balboa, by the way, was the first man to think of the canal project."

"Isn't there a city somewhere near here called Panama?" Alice questions. Yes, we are able to see it, just next to Balboa. This is new Panama. Old Panama was the first

city ever planted on the mainland of America, and for many years it prospered from the Spanish trade across the Isthmus; but its riches were its ruin. Henry Morgan, the pirate, came with his twelve hundred wild rovers, and after a desperate fight set the city on fire and captured it. The ruins of old Panama stand a few miles away from the new city.

The Canal Lay-Out.—Now we are ready to go through the big canal, the greatest piece of engineering work from the Rio Grande to the farthest tip of South America, planned, paid for, and directed by Americans. "Youngsters," says a bronzed American who has been paying attention to the talk, "I've been around here for a good many years. Would you like me to give you the general lay-out?"

Every one says yes, and our American friend begins. "You're going through a part of the Isthmus that's so low the ship need climb only eighty-five feet and travel only fifty miles in order to pass from sea to sea, deep water to deep water. You've been in the deep channel without knowing it, but see, we're between the banks of the real canal now. In a few miles we'll come to locks, and they'll lift us up to a small lake, Miraflo'res. After going through that another lock lifts us again, and we reach the top of the canal.

"We stay on the top of the canal, eighty-five feet above the sea, for thirty miles. The first eight miles are through a deep cut, whose sides rise more than two hundred feet above our heads; then from the cut we pass into a broad lake which stretches arms out in all directions. That's Gatun (Gah-toon') Lake. It was made by damming up the Chagres (Shah'-grays) River that flows into the Caribbean. And let me tell you, it's some big dam we put there, a mile and a half long—one of the largest in the world.

"For more than twenty miles our ship will pass through the lake. Then we'll come to the big dam, where locks will drop us down to the Atlantic level, and all we have to do is to steam quickly out to Limón Bay. Is that clear in your minds now?"

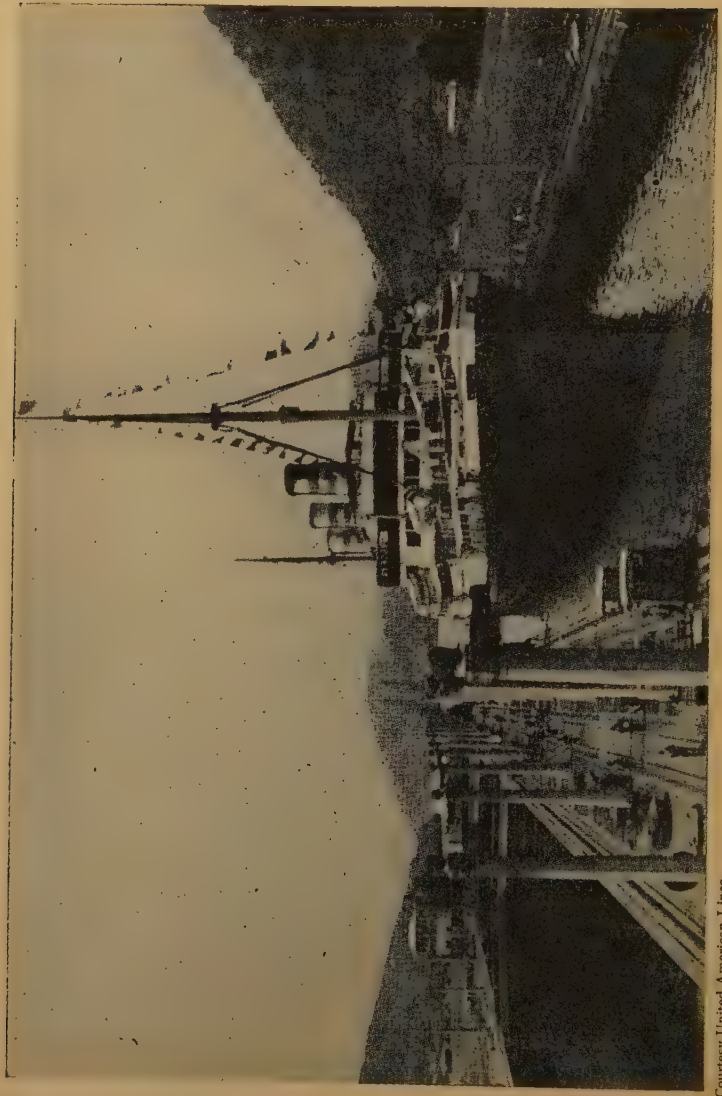
"Thank you, sir," answers Ruth. "I can see it very plainly."

The Big Locks.—While our friend has been talking, the vessel has come close to the first locks, and the lock-gates swing wide to receive us. Such locks! Each one of the six locks through which we must pass in crossing the Isthmus is a thousand feet long. Its enormous doors weigh hundreds of tons, and who will move them? Electricity, that magician who can use a giant's force or a baby's touch, does the work. Steadily, slowly, surely, the gates close, the water-valves open, and the lock fills, raising us up about thirty feet.

As the ship lies there at the top of the lock, four electric locomotives, which have been quietly fastened to the steamer, begin to move all together. They pull us along into the next lock; when that is filled and opened, the locomotives tow us out of it until the ship can use her own power to cross Miraflores Lake. "I think a canal lock is a wonderful invention, even though it looks easy when you see it work," concludes Alice.

The Gold-Seekers.—Now that the locks have become familiar to us, we search for our American friend. When we find him, Fred begs, "Won't you tell us about the digging of this canal? I know you are well acquainted with that."

Smiling, the American begins: "I'm not going back in history any farther than the discovery of gold in California, that brought swarms of travelers across the Isthmus. They



Courtesy United American Lines

A steamship passing through the lock. Notice the electric locomotives and from the size of the people judge the size of the lock.

preferred to come this way rather than to face the dangers of going by wagon across the Great Plains and the Rockies. However, yellow fever here proved just as deadly as Indian arrows there, and many, many seekers for gold found only a grave in this land. Soon a railroad was built across the Isthmus to take care of the great traffic, and became a world's highway.

Poor De Lesseps.—" About twenty years after the Panama Railroad was finished, a great French engineer, Ferdinand de Lesseps, took up the canal project. He had won fame and fortune by directing the digging of that greatest canal of the Old World, the Suez Canal, which opened a short water-road to and from the Indian Ocean. Now he felt that he would never be satisfied until he had done for the New World what he had done for the Old.

" Accordingly De Lesseps formed a company in Paris to dig a sea-level canal across the Isthmus. The company easily raised money, for every one had confidence in De Lesseps, who, indeed, was an honest man. But De Lesseps was growing old and he let his associates waste the money. After eight years not a bit of actual digging had been done.

" The company then wisely changed its plans, decided to build a canal like this, with locks, and began to dig, but the money ran out. A little later, another company tried the job, but, although it did a lot of work, it too gave up in despair, leaving a vast amount of machinery and all kinds of equipment rusting in the jungle."

" Oh, what a shame! " cries tender-hearted Ruth. " And poor Mr. De Lesseps—what about him? "

" De Lesseps," replies our friend, " was brought to trial, after the first company failed, for embezzling the money.

Undoubtedly he had not kept watch as he should, so he and his son were convicted; but as every one knew they did not mean to defraud the stockholders, the two engineers were never punished. The next year De Lesseps died, heart-broken. It was a sad end to a famous life."

"What next?" queries Jack, whose eyes are getting big.

"Well, after a while Uncle Sam saw that here was his chance. The Spanish-American War, with fighting in Cuba and in the Philippines at the same time, had shown that the eastern and the western coasts of the United States should be brought as near together as possible.

"There was then no republic of Panama. The South American country of Colombia owned the region, but the people of the Isthmus felt that Colombia didn't do anything for them, just collected taxes. They knew that if Uncle Sam dug a canal it would put lots of money into their pockets, so they were anxious for the canal to come. When Uncle Sam offered to pay Colombia for the privilege of building the canal, Colombia refused.

"The people of the Isthmus then decided to become independent. They declared that Panama should be a republic, then they chose a president, and signed the canal treaty with the United States. At once Uncle Sam started work. The Americans gave Panama ten million dollars in payment and agreed to pay a yearly rent for a zone of land, ten miles wide, five miles on each side of the canal, across the Isthmus."

"C. Z."—"Is that what they call the Canal Zone?" Jack inquires.

"Yes, it is," comes the answer. "If you wanted to write a letter to a friend in Balboa, you would address it to Balboa, C. Z."

"And I'd use the same letters for Panama, wouldn't I?" asks Ruth.

"No, you wouldn't. The United States didn't want to govern a lot of new citizens here, so, although the city of Panama on this side and the city of Colon on the other side would naturally come within the Canal Zone, the treaty left them out. They remain in the republic of Panama. The Canal Zone itself is ruled by a governor from the United States."

"Then Uncle Sam doesn't own the Zone?" says Fred thoughtfully.

"No, we just rent it; but as the lease runs for a hundred years, and we can renew it for as long as we wish, we might just as well own the Zone."

Business and Health.—"There must have been busy times while we were building the canal," is Alice's opinion.

"Yes, indeed, there were," answers our patient friend. "At the height of operations sixty thousand people lived and worked here. More than half of them were husky, healthy negro laborers from the West Indies. We mustn't forget their services. Now less than twenty-five thousand people live in the Zone, and only about one out of three of them is an American."

"Didn't a lot of people die of fever while Uncle Sam had so many workers here?" chimes in Ruth.

"That's a story in itself," says the American. "I'll bring Dr. Moss over to tell you that."

Soon a bright-eyed, clean-cut young medical man greets us. "I'm proud of our American doctors," says he, "and I'm glad to have our girls and boys know what we did here.

The Campaign of Colonel Gorgas.—"This spot," the doctor goes on, "was one of the worst fever-holes in the

world, and we doctors knew that unless we could conquer Old Man Fever Uncle Sam's men would die off like flies. When the Panama Railroad was built, the common saying was that a life paid for every tie that was laid; and I guess that was true. The laborers of the French company had just

Courtesy Panama-Pacific S. S. Line

A boy of Panama with his pet parrot. From travel books find out what pets the people of Central America have.

as heavy a death-list. So it was up to us doctors to beat the fever.

"People used to think that certain kinds of fever rose from swamps, in a mist, and the very name 'malaria' means 'bad air,' but after a time we found out that malarial fever and yellow fever didn't come from the air but from the stings of mosquitoes. Therefore, in the Canal Zone and in

the cities of Panama and Colon, we set out to clean up the mosquitoes. Our 'mosquito police' went around the yards of the houses and the water-pools of the swamps, putting oil wherever there was a little bit of standing water from which mosquitoes could hatch.

"Of course this took a long while, and so we required every house to be screened in thoroughly so that these fever mosquitoes, which usually fly only at night, could not get in. Our health police kept right on the job, and in the end we made the Zone one of the healthiest places in the world. People are far safer in health here than they would have been in New York, Chicago, or Philadelphia.

"Our health commander was Dr. William Crawford Gorgas, an army medical officer who had already won a name for himself by stamping out yellow fever from Havana while we were in charge of Cuba. Now, as Colonel Gorgas, he led our health-fight on the Isthmus. I think his task was harder than that of the engineers, but he gave everything he had to carry it through. It was splendidly done, and Uncle Sam made him a general, which he richly deserved. Don't forget Colonel Gorgas when you think about the building of the canal."

The Use of the Canal.—Eight hours from the time we entered the canal the six locks have been passed and the ship is moving through the low, swampy land that borders Limón Bay. We must soon say good-bye to our kind American friend who has given us such valuable information. "Before you leave," he says, "wouldn't you like to know what use this canal has been? You know that as an American citizen some of your money is invested in it."

"Yes, go on! Go on!" exclaims every one.

"Well, then, remember this. It has shortened by eight thousand miles the distance between New York and every port on the Pacific coast of North America. Between those same ports and the ports of England, Belgium, Holland, or Germany, it saves six thousand miles. It has brought Australia and Japan nearer to New York than to England. It has made the West Indies much more important, for it put them on one of the main roads of the world."

"Do many vessels use the canal?" Jack asks.

"Several thousands of them each year," our friend returns, "and each one has to pay toll."

"Why don't our ships go through free?" answers Jack. "We had to pay for the canal."

"That would be giving too much advantage to our ships over our railroads," says our friend. "The idea is to favor neither side too much. Every ship that passes through the canal pays on an average between four and five thousand dollars. Our ships have to pay just as much as the ships of foreign nations, but Uncle Sam wants to have as many ships as possible use the canal so that it will pay the interest on his investment. Uncle Sam perhaps has a shrewd business head after all. Of course in case of war we could shut the canal to any ships we wished, but a good way to prevent war is to treat other nations fairly."

The End of the Trip.—The vessel has come out into Limón Bay, and ahead of us appear the white walls and red roofs of a town which marks the Caribbean end of the canal —the town of Cristo'bal. Just alongside of it is the city of Colon (Co-lone'). One side of a street is in Cristobal, the other in Colon.

"That's a funny name, Cristobal," thinks Ruth—"but hold on! Cristobal—Colon! Why, in Spanish that means

Copyrighted, 1911, by Munn & Co., Inc. Courtesy "Scientific American"

Bird's-eye view of Panama Canal Locks

Christopher—Columbus! I'm glad those names mark our canal, and mark the youngest republic in North America. We think that canals helped make our republic, but here's a republic made for the sake of a canal.

"Somehow," continues Ruth, thinking aloud, "I feel that while this trip has helped me to understand other countries better, it has helped me, too, in understanding our own country and its big problems. Uncle Sam's like a man with a lot of children and a lot of new neighbors. He tries to be kind to his children, fair to his neighbors, and careful of his own affairs. He has no easy task, and sometimes the questions that come up are hard to solve. The more we Americans know about our neighbors, the better we can help Uncle Sam to carry on in the best way."

QUESTIONS AND SUGGESTIONS

1. Tell the story of Morgan's daring journey across the Isthmus to capture Panama.

2. Why was it easier to dig a canal at Suez than at Panama?

3. During the Spanish-American War our battle-ship "Oregon" made a remarkable voyage. How did that voyage help in the building of the Panama Canal?

4. Why are vessels not allowed to pass through the locks under their own power?

5. Would "mosquito police" be a help to your community? Explain.

REFERENCE TABLES

(Figures for the United States are included in order to facilitate comparison. Statements are in round numbers.)

I. COUNTRIES AND POSSESSIONS OF NORTH AMERICA

	Area in sq. mi.
United States (continental portion)	3,000,000
Dominion of Canada	3,700,000
Mexico	800,000
Alaska	600,000
Nicaragua	50,000
Guatemala	48,000
Honduras	46,000
Cuba	44,000
Panama	32,000
Costa Rica	19,000
Dominican Republic	19,000
Salvador	13,000
Haitian Republic	11,000
British Honduras	8,500
Hawaiian Islands	6,500
Bahama Islands	4,500
Jamaica	4,000
Porto Rico	3,500
Canal Zone	500
Virgin Islands	150
Bermuda Islands	20

II. POPULATION OF COUNTRIES AND POSSESSIONS

United States (continental)	106,000,000
Mexico	14,000,000
Canada	9,000,000
Cuba	3,000,000
Guatemala	2,000,000
Haitian Republic	2,000,000
Salvador	1,500,000
Porto Rico	1,300,000
Dominican Republic	900,000
Jamaica	850,000
Honduras	650,000
Nicaragua	600,000
Costa Rica	500,000

Panama	450,000
Hawaiian Islands	250,000
Alaska	55,000
Bahama Islands	50,000
British Honduras	45,000
Virgin Islands	25,000
Canal Zone	23,000
Bermuda Islands	20,000

III. LAKES OF NORTH AMERICA

	Area in sq. mi.
Superior	31,000
Huron	22,000
Michigan	21,700
Great Bear	11,000
Great Slave	10,000
Erie	10,000
Winnipeg	9,000
Ontario	7,000
Nicaragua	3,600
Athabasca	3,000
Great Salt	2,300
Managua	450
Gatun	165

IV. HEIGHT OF MOUNTAINS

	Ft. ab. sea level
McKinley, Alaska	20,300
Logan, Canada	19,500
Orizaba, Mexico	18,500
St. Elias, Alaska	18,000
Popocatepetl, Mexico	17,500
Iztaccihuatl, Mexico	17,000
Whitney, California	15,000
Rainier, Washington	14,500
Shasta, California	14,400
Pike's Peak, Colorado	14,100
Mauna Kea, Hawaii	13,800
Colima, Mexico	13,000
Agua, Guatemala	12,000
Mitchell, North Carolina	6,700
Washington, New Hampshire	6,300
Momotombo, Nicaragua	6,000
Izalco, Salvador	6,000

INDEX

(Note the numerous back-references, which keep subjects in mind; also note the numerous references and comparisons, as shown by index, dealing with the United States.)

A

Acadians, 110
Acapulco, 232
Adirondacks, 89
Adobe, 188, 190, 191, 203
Agaves, 220, 236, 238
Agua, Volcano, 248, 250
Alaska, 32–52, 59, 66, 164, 169
Alberta, 62, 68, 71, 74, 76
Aleutian Is., 37, 107
Alfalfa 72, 188
Algonquin Pk., 82
Allspice, 143
Amapala, 252
Anahuac, Valley of, 225
Annapolis Royal, 112, 113
Annapolis Valley, 112
Annotto, 142
Anticosti, 99
Antilles, Greater, 163, 172
Antilles, Lesser, 163, 172, 180, 183
Apples, 67, 82, 112, 114
Arctic Circle, 50
Arctic O., 55
Arizona, 185, 193
Arkansas, 15
Asbestos, 98
Assiniboine R., 77
Athabasca R., 59, 60
Athabasca L., 59, 60
Atlanta, 77
Atlantic O., 97, 120
Atlantic City, 8
Australia, 15, 280
Aztecs, 206, 225, 226, 228, 235

B

Bahama Is., 118, 120, 240
Balboa, 271, 276
Balboa, Vasco Nunez, 271
Baltimore, 11
Bananas, 118, 146–149, 154, 167, 204, 213, 233, 244, 246, 253, 256, 262, 264
Banff, 69, 70, 72
Barbados, 182
Barren Grounds, 58
Bell I., 103
Belle Isle Strait, 99
Bering Sea, 37, 42, 46, 47
Bering Strait, 49
Bermuda Is., 114–121, 182
Blue Mts., 142
Bluefields, 262, 264
Bow R., 69, 71
Bras d'Or Lakes, 108
Bridgetown, 183
British Columbia, 30, 62, 65, 68
British Honduras, 243, 244
Buccaneers, 151
Buena Vista, 203
Buffalo, 38, 69
Buffalo, N. Y., 83
Bull-fights, 229, 234
Butte, 119

C

Cabot, John, 101
Cacao, 159, 178, 234
Cactus, 194
Calgary, 71, 74
California, 5, 40, 55, 66, 261, 273
California, G. of, 232
Camaguey, 137
Campeche, State, 237
Campeche, B. of, 237
Canada, 53–114
Canadian National Rwys., 77

Canadian Pacific Rwy., 31, 67
Canal Zone, 276–279
Canso Strait, 108
Cape Breton I., 107
Caribbean Sea, 169, 172, 177, 237, 243, 244, 252, 261, 272
Caribou, 44, 49, 58, 102
Caribs, 177, 180
Cartago, 269
Cartier, Jacques, 88, 92, 107
Cattle. See Grazing
Central America, 236, 243
Chagres R., 272
Champlain, Saml. de, 93, 112, 113
Chapultepec, 228
Chaudiere Falls, 87
Chesapeake Bay, 35
Chewing gum, 235, 236
Chicago, 15, 34, 77, 83, 131, 169, 194, 226, 279
Chicle, 235, 236, 237
Chihuahua, 189, 193, 201
Chinese, 4, 15, 32, 47, 142
Chinook, 72
Chocolate, 110, 162
Ciudad Porfirio Diaz, 187
Coal, 42, 66, 72, 74, 107, 193
Cobalt, 79, 86
Cocoa, 162
Coconuts, 1, 20, 145, 213, 253
Codfish, 103, 110
Coffee, 19, 23, 154, 167, 204, 212, 213, 233, 244, 246, 250, 251, 252, 255, 267
Colima, Mt., 232
Colon, 277, 279, 280
Colombia, 276
Columbia R., 32, 67, 68
Columbus, Christopher, 118, 151, 155, 157, 163, 168, 178, 228, 282
Conception Bay, 103
Connecticut, 140
Cook, Captain, 20, 21, 23
Copper, 42, 66, 79, 119, 193, 212, 232
Coral, 115, 182, 237
Corinto, 255, 259
Corn, 233
Cortes, Hernando, 193, 206, 211, 219, 225, 228, 235
Costa Rica, 244, 264–269
Cotton, 190, 194, 212, 215, 217
Cristobal, 280
Cuba, 10, 122–138, 140, 145, 151, 154, 164, 166, 172, 174, 215, 237, 240, 276, 279

D

Dairying, 72, 105
Dawson, 53, 55, 72
Delaware, 105
DeLeon, Ponce, 165
DeLesseps, Ferdinand, 275
Delta, 47, 56
Des Moines, 153
DeSoto, Hernando, 126
Diamond Head, 2, 8
Digby, 113
Dominica, 176
Dominican Republic, 152, 155–162
Drake, Francis, 158, 164
Duluth, 76, 216
Durango, 204

E

Eagle, 53
Eagle Pass, 187
East Indies, 13, 232
Ebony, 206
Edmonton, 74
Elizabeth, N. J., 206
El Paso, 185, 189
Endicott Range, 50
Erie, Lake, 58, 77
Erie Plain, 82
Eskimo, 33, 46–50, 58, 73
Estuary, 97
"Evangeline," 110

F

Fairbanks, 39, 40, 42
Fall River, 31, 153
Florida, 118, 120, 126, 229
Florida Strait, 116
Fonseca, Gulf of, 252, 255, 262
Fort de France, 178
Fort McPherson, 56, 58, 59
Fort William, 76, 83
Fort Yukon, 51
Franklin, Benjamin, 91

Fraser R., 65, 67
Frontera, 237
Fruit-raising, 72, 82, 137, 154
Fuego, Volcano, 248, 250
Fundy, B. of, 111–114
Fur-farming, 105–107
Fur-seals, 37–39
Fur-trading, 56–58, 60–61, 74

G

Gary, 256
Gatun Dam, 272
Gatun Lake, 272
Georgia, 115
Georgian Bay, 82
Ginger, 143
Glaciers, 35
Glacier Natl. Pk., 67
Gold, 40–42, 55, 66, 79, 193, 253, 269, 273
Golden Gate, 1
Gorgas, Dr. Wm. C., 277, 279
Granada, 256, 260
Grand Banks, 103
Grand Pré, 110
Grazing, 19, 26, 72, 137, 188, 204, 233, 256, 268
Great Bear L., 58
Great Slave L., 59, 60
Green Mts., 89
Grenfell, Dr. Wilfred, 100
Greytown, 261
Guadalajara, 197, 201
Guadeloupe, 176
Guanajuato, 199, 201
Guatemala, 243, 244–250, 251
Guatemala City, 248–250
Gulf Stream, 115, 120–121

H

Haciendas, 188, 204, 241, 267
Haiti Island, 151–162, 165
Haitian Republic, 151–155, 157
Haleakala, Mt., 26, 27
Halifax, 108, 110, 113
Hamilton, Alexander, 174
Hamilton, Bermuda, 115
Hamilton, Ont., 82
Harrisburg, 211
Havana, 122–132, 153, 157, 163, 165, 279
Hawaii, 3, 5, 6, 18–26, 99
Hawaiian Is., 1–29, 164, 188, 240
Henequen, 234, 238–240
Hilo, 22, 26
Hindus, 141, 144
Honduras, 244, 252–254
Honolulu, 2–9, 12, 14–16, 18, 29
Hualalai, 19
Hudson Bay, 58, 60, 72, 76, 79, 99
Hudson's Bay Co., 56–58, 74, 77
Huron, L., 82

I

Idaho, 1
Inland Passage, 32, 37
Iron, 81, 103, 107, 138, 204, 246
Irazu Mt., 269
Irrigation, 11, 22, 188, 216
Izalco, Mt., 251
Iztaccihuatl, Mt., 218, 225

J

Jacksonville, 250
Jamaica, 140–150, 151, 154, 163, 259, 264
Japan, 5, 15, 232, 280
Japanese, 4, 12, 15, 32
Jasper Park, 62, 64, 65
Juarez, 185
Juarez, President, 185, 192, 211
Juneau, 33, 34, 42

K

Kansas, 237, 239
Kilauea, Vol., 23, 26, 27
Kingston, Ja., 141
Kingston, Ont., 84, 85
Klondike, 53

L

Labrador, 99, 100, 103
Lachine Rapids, 98
Lapland, 49
Laredo, 187
La Salle, Robt., 85, 90
Laurentian Mts., 98
Lava, 1, 5, 11, 18, 19, 23, 180, 252
Laval Univ., 95

Lead, 193, 212, 232
Leeward Is., 172
Leon, 255, 256, 257, 258
Limes, 177, 204
Limon Bay, 273, 279, 280
Limon, Port, 264
Logwood, 144, 244
London, Ont., 82
Louise, Lake, 68
Louisiana, 15, 219
Lower California, 193, 231, 232
Lumber, 31, 87, 114, 137, 256

M

Mackenzie R., 55, 59
Maguey, 220, 238
Mahogany, 137, 206, 244, 253
Maine, 114, 244, 271
Malaspina Glacier, 36
Mammoth Cave, 241
Managua, 255–259
Managua, L., 255, 256, 257
Manitoba, 71, 74, 76, 77
Manzanillo, 232
Marines, 153, 158, 259
Maritime Provinces, 105
Martinique, 173, 176, 178
Massachusetts, 113, 244
Matanzas, 134, 137
Maui, 26
Mauna Kea, 18, 19, 22, 25
Mauna Loa, 22, 23, 26
Mayas, 235–237, 239, 246
Mazatlan, 232
McGill Univ., 95
McKinley, Mt., 39
Merida, 237, 240, 241
Mesquite, 188
Mexican War, 210, 228, 267
Mexico, 185–242, 246
Mexico City, 222–230, 232, 233
Mexico, Gulf of, 76, 116, 120, 172, 237
Miami, 119
Michigan, Lake, 78, 256
Midway I., 5
Miraflores, L., 272
Mississippi R., 59
Missouri R., 59
Mitchell, Mt., 18
Mobile, 33, 82
Momotombo, Mt., 257, 258
Monroe Doctrine, 158
Montana, 66, 68, 71
Montcalm, Marquis de, 93, 95
Monterrey, 203
Montreal, 85, 88–92, 102, 108
Mosquito Coast, 262
Mounted Police, 72
Muir Glacier, 36
Muskoka Lakes, 82

N

Nashville, 31
Nassau, 119, 120
Nevis, 174
New Brunswick, 113, 114
Newfoundland, 99, 100, 101–104, 107, 110
New Jersey, 244
New Mexico, 185
New Orleans, 126, 151, 237, 239
New Providence I., 119
New York City, 11, 90, 113, 114, 131, 151, 174, 194, 233, 279, 280
New York State, 82, 131, 244
Niagara Falls, 83
Nicaragua, 244, 252, 255–263
Nicaragua Canal, 261, 262
Nicaragua, L., 256, 259, 260, 261
Nickel, 79, 81
Nogales, 187
North Dakota, 71
Northers, 210
Nova Scotia, 108
Nuevo Laredo, 187

O

Oahu, 3, 5–7, 13
Okanagan Val., 67
Omaha, 77
Ontario, 79, 84, 86
Ontario, L., 83
Onyx, Mexican, 217
Oranges, 118, 167, 204, 233
Oregon, 67
Orizaba, 215, 233
Orizaba, Mt., 215, 218
Ottawa, 85
Ottawa R., 82, 87, 88

P

Pacific O., 15, 16, 231, 248
Palenque, 236
Pali, the, 6
Panama, Bay of, 270
Panama Canal, 11, 233, 262, 271–282
Panama City, 15, 271, 277, 279
Panama Isthmus, 251, 261, 271, 273
Panama, Republic of, 244, 270–282
Panuco R., 206, 208
Papayas, 255
Paper and Pulp Ind., 98, 103, 114
Peace R., 59, 60
Pearl Harbor, 4, 5, 17
Pearls, 232
Pelée, Mt., 180
Penn, William, 57, 140
Pennsylvania, 82, 101, 187, 271
Peons, 192, 195, 197, 220, 226, 233, 253
Peoria, 211
Peru, 251, 256
Peruvian Balsam, 251
Petroleum, 206–209
Philadelphia, 11, 194, 206, 279
Philippines, 15, 17, 232, 238, 276
Pike's Peak, 5, 18, 65
Pineapples, 6, 13, 15, 255
Pittsburgh, 101
Placers, 40
Point Barrow, 51
Ponce, 166
Popocatepetl, Mt., 218, 225
Porcupine R., 79
Port Antonio, 147, 149
Port Arthur, 76, 83
Port au Prince, 152
Port Nelson, 76
Port Royal, Ja., 140
Portland, Me., 114
Porto Rico, 163–167, 171, 172, 174
Pottery, Mexican, 198
Pribilof Is., 37–39
Prince Edward Is., 105–107, 108
Prince Rupert, 32
Progress, 237, 239, 243
Pueba, 216, 220
Puerto Barrios, 244, 246
Puerto Limon, 264
Puerto Mexico, 233
Puget Sd., 30
Pulque, 220
Punch-Bowl, 4
Puntarenas, 269

Q

Quebec, 85, 92–95, 102, 108, 110, 112
Quebec Province, 86, 92, 98
Quintana Roo, 237
Quirigua, 246

R

Red River of North, 77
Reindeer, 49, 58
Rhode Island, 5
Rice, 15
Rideau Canal, 85
Rio Grande, 185, 187, 272
Robson, Mt., 65
Rocky Mts., 50, 59, 62, 65, 68, 71, 72, 187, 275
Rocky Mt. Park, 68
Roosevelt, Theodore, 138
Rosewood, 206
Rubber, 117, 234

S

Saguenay R., 97, 99
St. Augustine, 112, 155
St. Croix, 169, 174
St. Elias Mt., 35, 36
St. John, V. I., 169
St. John, N. B., 113
St. John, Lake, 98
St. John's, Newf., 101, 105
St. Lawrence, Gulf of, 105
St. Lawrence R., 76, 84, 88, 90, 92, 96, 98, 99
St. Louis, 34, 39
St. Michael, 47, 50
St. Pierre, 180
St. Thomas, 169
St. Vincent, 178, 180
Salina Cruz, 233
Salmon, 31, 32, 46, 97
Saltillo, 202
Salt Lake City, 197
Salvador, 244, 251, 253, 266

San Antonio, 228
San Diego, 211
San Francisco, 1, 11, 15, 37, 40, 83, 233
San Juan, 163
San Juan R., 261
San José, Costa Rica, 266
San José, Guatemala, 250
San Luis Potosi, 201, 202, 204
Santa Fé, 155
Santiago, 137, 140
Santo Domingo, see Dominican Republic
Santo Domingo City, 155–157
Sapote-tree, 234
Saskatchewan, 71, 74, 76
Saskatchewan R., 74
Seals, 37–39, 48, 58
Seattle, 15, 29, 50, 55
Selkirk Mts., 68
Seward, 36, 37, 39
Seward, Wm. H., 36, 169
Siberia, 49
Sierra Madre, 187, 194, 199, 231
Silver, 79, 193–195, 199, 201, 204, 212, 232, 253
Sir Donald, Mt., 68
Sisal, 238
"Sisal hemp," 238
Sitka, 33, 34, 35
Skagway, 55
Slave R., 59
Smelters, 81, 190, 193, 204
Spear, Cape, 101
Sponges, 119
Steel, 107, 204, 246
Sudbury, 79, 81
Suez Canal, 275
Sugar, 2, 10, 12, 15, 17, 90, 110, 132–136, 154, 166, 174, 184, 250, 255
Sugar-cane, 1, 6, 10, 11, 22, 134, 145, 166, 170, 176, 178, 204, 215, 233, 246, 251, 258
Sulphur, 81, 219
Superior, L., 76, 79
Surf-riding, 8–9, 11
Switzerland, 62, 68
Sydney, 107

T

Tabasco, 237
Tampico, 206, 210, 211, 231
Tanana R., 42, 46
Taylor, Zachary, 203
Tegucigalpa, 252–253
Tehuantepec, Isth. of, 233, 243
Texas, 187, 219
Texcoco, L., 225
Thompson R., 65, 67
Thousand Is., 84, 88
Thunder Bay, 76
Tin, 42, 193
Tobacco, 131, 166, 215, 246
Toronto, 83, 85
Torreon, 194
Trade-winds, 22, 142, 166, 167, 173, 183, 250
Tropic of Cancer, 202, 226, 232
Tundra, 47, 49, 51, 53, 58, 59
Turks Island, 119
Tuxpam, 206, 208, 231

U

Utah, 187

V

Vancouver, 30, 31, 67, 72, 76, 108
Vancouver, Capt., 21
Vancouver Is., 30, 31
Vanilla, 213
Vera Cruz, 210–212, 231, 232
Victoria, B. C., 30
Victoria, Queen, 30, 85
Virgin Is., 168–171, 172
Volcano, 5, 18–27, 37, 115, 174, 176, 180, 215, 218, 248, 251, 252, 257

W

Waikiki, 7, 8
Wasatch Mts., 187
Washington, Mt., 19, 203, 252
Washington, George, 83, 91
Washington State, 67, 68
Water-buffalo, 15
Water-power, 83, 90
Welland Canal, 83
West Indies, 151, 158, 277, 280
West Virginia, 30

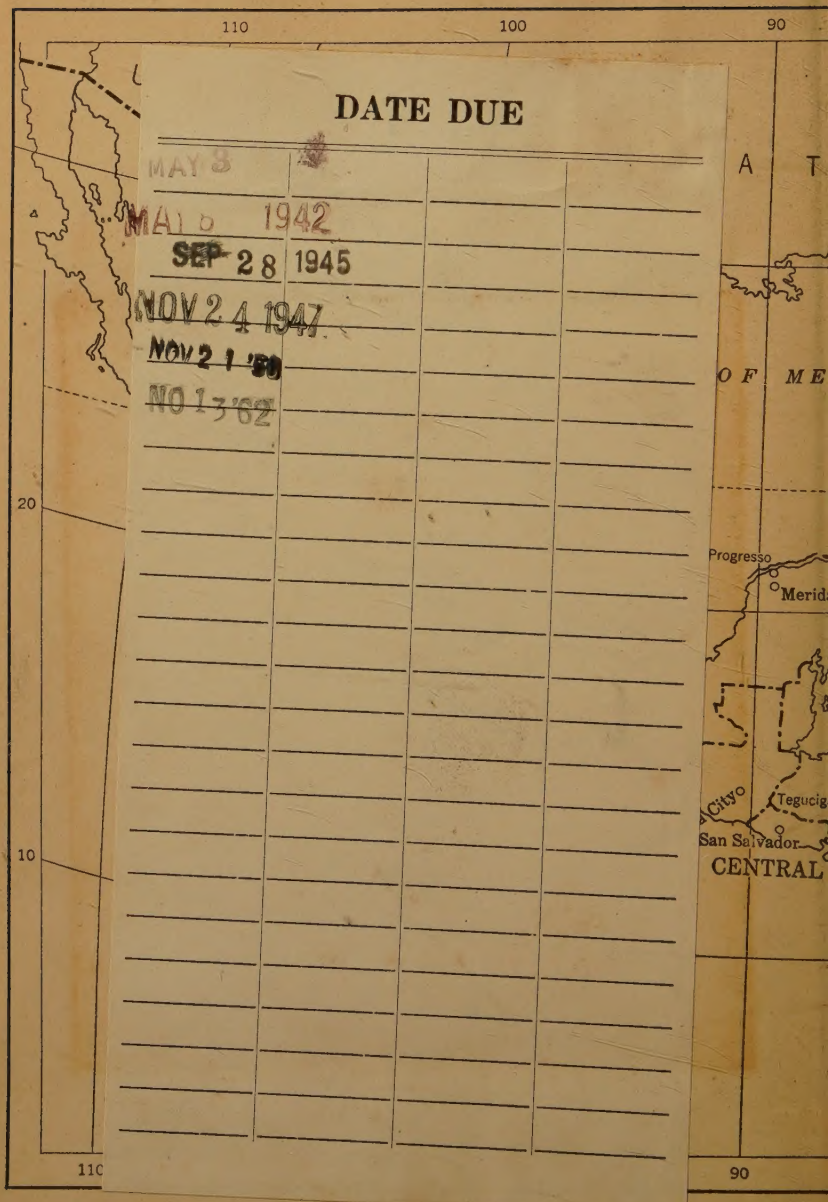
Wheat, 31, 74–77, 83, 90, 110, 188
Whitehorse, 55
White Pass, 55
Windward Is., 172
Windward Passage, 151
Winnipeg, 77
Winnipeg L., 77, 83
Wolfe, Gen. James, 93, 95

Y

Yellow fever, 277
Yellowhead Pass, 64, 65
Yellowstone Park, 62, 82, 256
Yoho Park, 68
Yucatan Channel, 243
Yucatan Peninsula, 172, 236, 237, 243
Yucatan State, 237
Yukon R., 40
Yukon Territory, 53

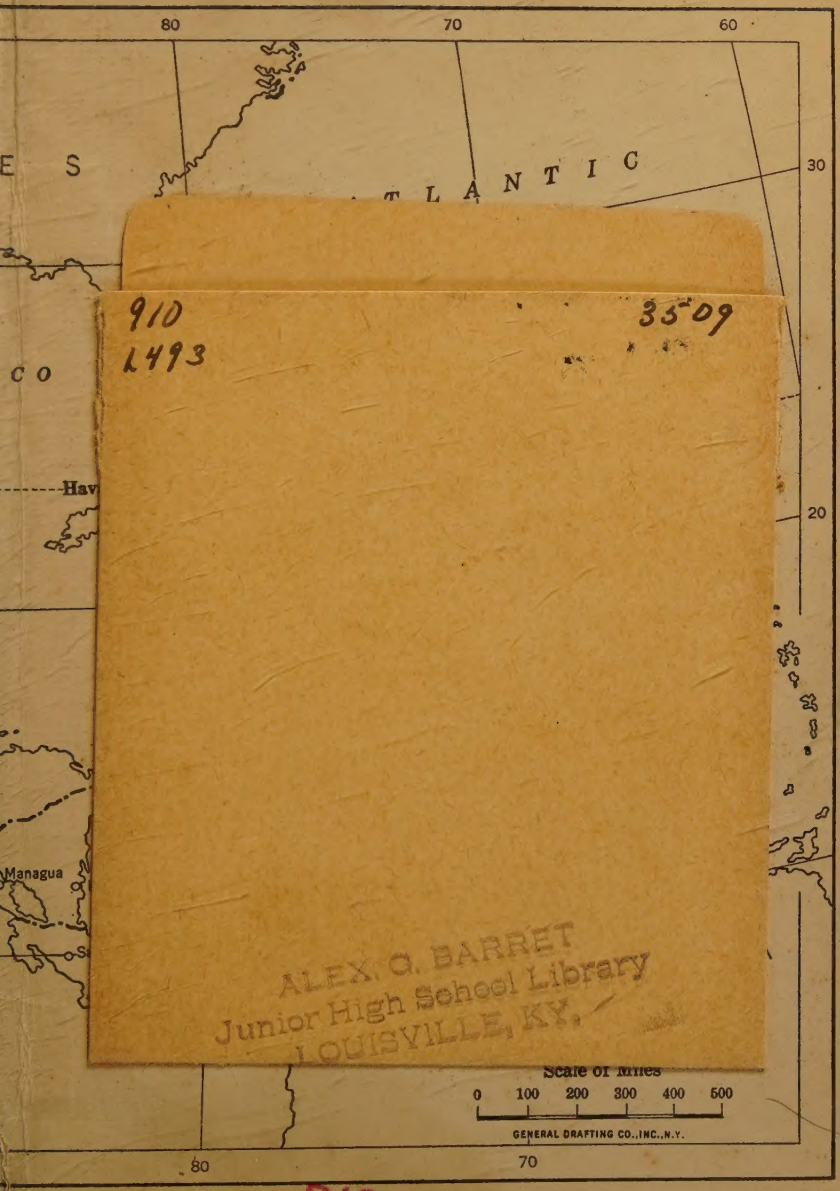
Z

Zacatecas, 194, 197, 201
Zebus, 145



DATE DUE

MAY 3
MAR 6 1942
SEP 28 1945
NOV 24 1947
NOV 21 '58
NO 13'62



910
L493
3509
ALEX. C. BARRET
Junior High School Library
LOUISVILLE, KY.
DISCARDED